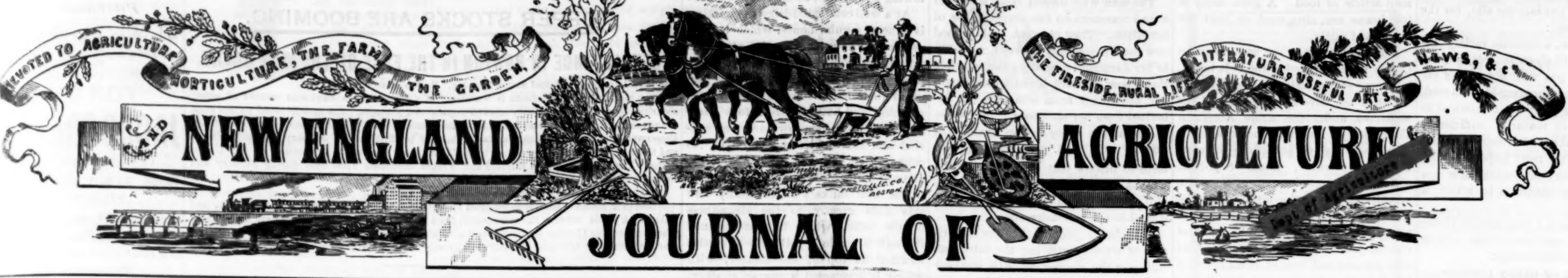


MASSACHUSETTS PLOUGHMAN

RECEIVED
JUL 9 - 1898
DEPARTMENT OF
AGRICULTURE



VOL. LVII. - NO. 40.

BOSTON, MASS., SATURDAY, JULY 2, 1898.

WHOLE NO. 2949

MASSACHUSETTS PLOUGHMAN
JOURNAL OF AGRICULTURE
AND HORTICULTURE

General Origin of the N. E. Agricultural Society
LINUS DARLING,
PROPRIETOR.
ISSUED WEEKLY AT
JOHN HANCOCK BUILDING
175 DEVONSHIRE STREET, BOSTON, MASS.
NEW YORK OFFICE,
268 TEMPLE COURT, NEW YORK CITY.

TERMS:
\$2.00 per annum, in advance. \$2.50 if not
paid in advance. Postage free. Single copies
5 cents.

50 paper discontinued, except at the option of the
proprietor and all arrears are paid.

All persons sending contributions to THE
PLOUGHMAN for use in its columns must sign
their name, not necessarily for publication, but
as a guarantee of good faith, otherwise they will
be assigned to the waste-basket. All matter
intended for publication should be written on
one side paper, with ink, and upon but one side.

Correspondence from particular farmers, giving
the results of their experience, is solicited.
Letters should be signed with the writer's real
name, in full, which will be printed or not, as
the writer may wish.

THE PLOUGHMAN offers great advantages to ad-
vertisers. Its circulation is large and among the
most active and intelligent portion of the com-
munity.

Rates of Advertising:
12-15 cents per line for first insertion.
1-4 cents for each subsequent insertion.

AGRICULTURAL.

The green plums should be gathered
up and fed to the hogs in order to de-
stroy the young curculio, which are in the
plum, and would burrow into the ground
if left undisturbed.

AFTER the blossoms fall shut, the hens
into the plum orchard. Early in the
morning every day jar the trees with a
heavy mallet, the head of which should
be bound in cloth.

For onion maggots, apply potash fer-
tilizer in little trenches along the roots, at
the rate of from 300 to 500 pounds per
acre, and cover with soil. Apply be-
fore, or during a rain.

PEOPLE who live in small places in
the village can put up lawn mowers,
and other green stuff in barrels, and
keep it for the poultry in winter. Pack
it in a tight barrel and place a very
heavy sliding weight on top. Keep the
barrel in the cellar.

For white grubs in strawberry beds,
dig the surface with kerosene emulsion
to a depth from two to three inches.
Application of water afterwards will
drive the emulsion down, and kill the
grubs at deeper levels. A heavy rain
will have the same effect.

SOMETIMES young potato beetles and
other insects, after eating poisoned
leaves will remain on the plant for sev-
eral days without eating, and then die.
If the poison does not seem to take
immediate effect, but the slugs soon stop
eating, which is the main point.

Insects do not like an extremely rank
growing plant any more than cattle do,
because they tend to seek out the weaker
plants, where the foliage is more delicate
to the taste. Anything that keeps up
the vigor of the plant will help throw off
the insects, and feeble plants should have
special attention with the poisoned spray
bottle.

Insects thrive in fields that are neg-
lected and poorly cultivated, covered
with rubbish in winter and with soil sel-
dom stirred in summer. It is the neg-
lected farm that serves as an insect nur-
ery for the whole neighborhood. On
the other hand, where crops are highly
cultivated, and thoroughly cultivated the
insects give comparatively little trouble.
Vigorous plant growth resists insect at-
tacks just as it does diseases.

To Keep Butter Cool.

Get a common flower pot and large
saucer, fill the saucer half full of water
and set the dish of butter upon it.
Then cover butter and saucer with
flower pot by turning the flower pot.
Close the hole in the bottom of the flower
pot with a cork, then dash water over
the flower pot every time it becomes
dry. If set in an airy place, a small
dish of butter for the table can be kept
cool and firm without ice.

How to Use Fish and Meat.

Fish scrap is a good fertilizer, but the
most profitable way to employ it is first
to feed it to some kind of farm animal.
Fed to hens it will make plenty of eggs,
and good ones if too much is not given.
Experiments were made by the Maine
agricultural college with a view to
ascertain the value of the fish diet for
sheep. Larger gains occurred with fish
than with ordinary food, and the con-
clusion was that the scrap is at least as
good, pound for pound, as grain and
hay for the production of meat. Straw
was fed with the fish.

This same idea may be applied to
meat scraps and dry blood. If these
articles are fed to hens and the manure
applied to the soil it will be nearly as
valuable as if applied to the land in the
first place.

Fertilizers for Garden Crops.

All experienced gardeners know that
in order to raise profitable crops of early
cabbage, cauliflower or beets their land
must be excessively rich.

Enormous quantities of dung are ap-
plied every year. The manure used
supplies nitrogen, phosphoric acid, pot-
ash and other ingredients of plant-food
far in excess of the amount removed in
the crop. And yet it is found necessary
to furnish a heavy dressing of manure
every year. If this is not done the crop
is poor and unprofitable.

Gardeners who make a specialty of
growing large areas of early cabbage
find it almost impossible to make the
land rich enough the first year. They
find that the second or third crop grown
and manured every year on the same
land, is better and earlier than the first
crop.

An experienced American gardener
recommends the application, every year,
of seventy-five or eighty tons of stable
manure per acre for early cabbage and
ten tons per acre for late cabbage. Many
gardeners make this distinction between
early and late cabbage, and yet the late
cabbage produce much the larger crops
and remove far more plant food from
the soil than the early crops.

A market gardener near New York,
who used large quantities of manure
and was very successful, was about to
open a street through his garden. Be-
lieving his land to be sufficiently rich
to carry through a crop of cabbage with-
out manure, he thought it useless to
waste money by using guano on that
portion on which the street was to be,
but on each side he sowed guano at the
rate of 1,200 per acre, and planted the
whole to early cabbages. "The effect,"
says the lamented Peter Henderson,
who relates the incident, "was the most
marked I ever saw. That portion on
which the guano had been used sold
readily at \$12 per hundred, or about
\$1,400 per acre, but the portion from
which the guano had been withheld
hardly averaged \$3 per hundred. The
street occupied fully an acre of ground,
so that my friend actually lost over
\$1,000 in the crop by withholding \$60
for manure."

Every gardener of experience can re-
call similar instances.

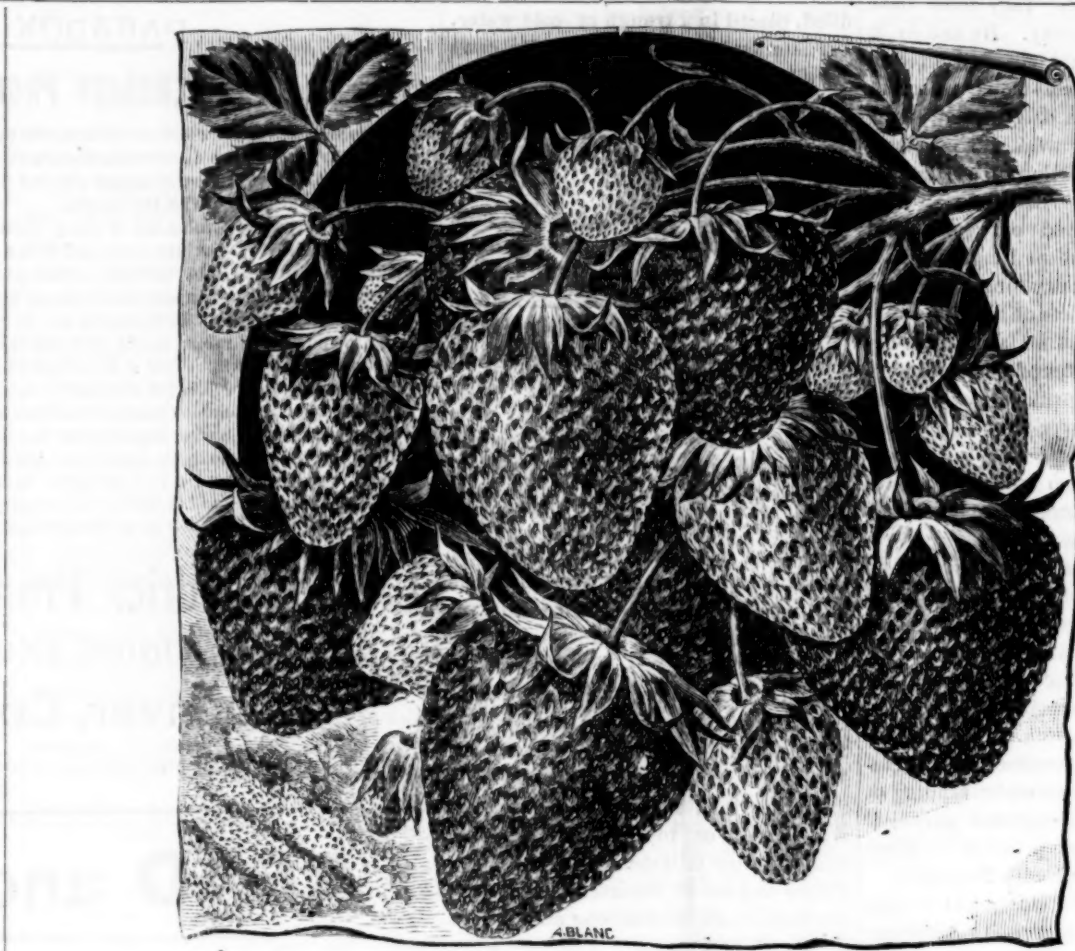
Recent scientific discoveries furnish a
satisfactory explanation of these facts,
and the explanation is of great practical
importance.

There is no difference between the
manurial requirements of an early and a
late cabbage. Both require the same
food, and the late crop, being the larger,
requires more rather than less food or
manure per acre.

And yet, in practice, it is found abso-
lutely necessary to use far more manure
or the early crop than for the late crops.
The explanation is this:

All our common agricultural and hor-
ticultural plants take up their nitrogen
in the form of nitric acid or nitrate.

As long as gardeners use nitrogen in
the form of barnyard or stable manure
it is undoubtedly necessary to use this
large quantity. They find it profitable
to use it; but thanks to the investiga-
tions of scientific men, we now know
how to obtain the same result with far
greater certainty and at vastly less cost.
It is now known that the nitrogen in
the organic matter of the soil or manure



THE LOVETT STRAWBERRY.

is slowly converted into nitric acid by
the growth of a minute organism, appar-
ently a micrococcus. This micrococcus
cannot grow if the soil is too cold, or
too wet, or too dry, or in the absence of
lime or an alkali. As a general rule,
there is no lack of lime in the soil, and
the other conditions necessary for the
conversion of the nitrogen into nitric
acid are warm weather and a moist, porous
soil.

In the early spring the soil is too wet
and too cold for this change to take
place. We must wait for warm weather.
But the gardener does not want to
wait. He makes his profits largely on
his early crops. Guided only by experi-
ence and tradition, he fills his land with
manure, and even then he gets only a
moderate crop the first year. He puts
on seventy-five more tons of manure the
next year and gets a better crop. And
he may continue putting on manure till
the soil is as rich in nitrogen as the
manure itself, and even then he must keep
on manuring or he fails to get a good
early crop. Why? The nitrogen of the
soil, or of roots of plants, or dung, is
retained in the soil in a comparatively
inert condition. There is little or no
loss. But when it is slowly converted
into nitric acid during warm weather,
the plants take it up slowly and grow
rapidly. Unfortunately, however, if we
have no plants growing in the autumn,
and there is much nitric acid left unused
in the soil, the rains of winter and early
spring leach out a large proportion of it,
and it sinks into the subsoil or under-
drains.

How, then, is the market gardener to
get the nitric acid absolutely necessary
for the growth of his early plants? He
gets it as before stated, from an exces-
sive and continuous use of stable ma-
nure, and even then he fails to get it in
sufficient quantity.

One thousand pounds of nitrate of
soda will furnish more nitrogen to the
plants early in the spring than the gar-
dener can get from seventy-five or one
hundred tons of well-rotted stable ma-
nure. The stable manure will furnish
nitric acid for his later crops, but for his
early crops the gardener who fails to use
nitrate of soda is blind to his own inter-
ests.—Joseph Harris in Food for Plants.

Asparagus Culture.

The soil best adapted to the growth
of asparagus is a light, sandy one, too
light for grass, but good corn land. To
prepare the soil for this crop, corn
should be planted two years, and from
twelve to twenty cords of good stable
manure should be applied to an acre
each year; this should be plowed un-
der, plowing the first year eight inches
deep and ten or twelve inches the next
year.

The corn should be so thoroughly cul-
tivated each year, that no weeds may
ripen their seeds.

The last of April, following the two
crops of corn, the land should be plowed
twelve inches deep, and one thousand
seven hundred pounds of ground bone,
and three hundred pounds of muriate of
potash applied to each acre and har-
rowed in.

Never buy asparagus roots when you
can grow them yourself; and when you
grow them never set any but the best
roots. A selection of the best one-year-
old roots is better than two-year-old
roots without selection. The cost of
growing roots is very trifling. Select
your seed from a bed that has stalks of
good size and uniform color; and avoid
planting seed which you know nothing
about. Sow in April about as you
would carrots; keep the soil on the top
loose by running the wheel hoe over it
often, and permit no weeds to grow.

If your soil is in good condition to
grow carrots, and you keep the aspara-
gus beetle off with hellebore or Paris
green, you will have roots large enough
to set when one year old, if you will re-
ject the small roots, say one-third of the
whole number.

Prepare the land for setting, by
plowing furrows twelve inches deep,
and four feet apart; this can be done
with a two-horse plough, going twice in
each furrow. Dig up the roots the same
day they are to be set, and set them in
the row about eighteen inches apart,
setting the crown about six inches be-
low the surface of the ground, and cov-
ering it about two inches; this will
leave the roots in trenches four inches
deep. After the asparagus is well up,
gradually fill in the trenches, and by
September have the land level, leaving
the crown of the asparagus six inches
below the surface.

The following spring apply one-thous-
and seven hundred pounds of ground
bone, and three hundred pounds of mu-
riate of potash to each acre, and plough
the ground with a small one-horse
plough, or run over it with a spading
harrow. Keep it well cultivated during
the entire season, permitting no weeds
to mature their seeds.

About the time the frost comes, cut
out the plants that have seed on them,
and let the others stand to protect the
land until spring, when they should be
raked up and burned. Follow the same
treatment the third year as the second,
and the fourth, and every following
year; the same amount of fertilizer may
be applied, using sometimes ashes in
place of muriate of potash. The fourth
year it is safe to cut the bed for market,
until the first of June, and every other
year until the twentieth of June, but
never later.

EDMUND HERSEY.
Cedar Hedge Farm, Hingham, Mass.

The most important point for the
newly planted trees is not to allow
the soil about them to become dry and
hard.

Tuberculosis in New Hampshire.

In view of the fact that tuberculin as
a test for tuberculosis has been so wide-
ly criticised in this state recently, the
following testimony and experience of
the New Hampshire Board of Cattle
Commissioners, taken from a special
report signed by the president and se-
cretary, will be interesting. They say:

The attention of the cattle commis-
sioners was called June 12, 1897, to a
herd of thoroughbred Holstein cattle
owned by Mr. F. B. Shedd of North-
field, an extensive land owner, cultivat-
ing and improving one of the finest
farms in New Hampshire. The tuber-
culin test had been applied by a veteri-
narian, employed by Mr. Shedd, to
twenty-one cattle, twelve of which failed
to pass and in which the temperature
reaction was very high. Two of the
twelve were advanced cases of tuber-
culosis and had been destroyed before
the arrival of the commissioners. The
ten animals remaining, to which our at-
tention was called, consisted of nine thor-
oughbred Holstein cows and a thor-
oughbred Holstein bull, the latter weighing
over 2,000 pounds, all of which were
under four years old. We found the
nine cows isolated from all other cattle
and so much excitement prevailed that
the enclosure in which they were kept
was a source of serious alarm to many
of the neighboring people. The bull
had been assigned the entire barn and
the general appearance of all the cattle
was vigorous and healthy.

We stated to Mr. Shedd that it was
not our practice to destroy animals sim-
ply upon the result of the tuberculin
test without other evidence of disease.

To this position strong exception was
taken by the owner of the cattle, who
expressed a very decided opinion that
the cattle should be destroyed. After a
lengthy discussion of the matter, Mr.
Shedd offered to contribute the ten re-
acting animals free of cost for the pur-
pose of an experiment to determine, as
far as possible, the proper course to take
with cattle in a similar condition. This
generous proposition was accepted by
the commissioners, with the understand-
ing that at the end of one year a report
of results should be made to the public,
and, if advisable at that time, the re-
maining animals in the experiment
should be killed and examined. Some
idea of the generosity of the gentleman
in contributing the cattle can be obtained
from the fact that these ten animals were
easily worth \$1,000 if sound and, ac-
cording to the law of appraisal for con-
demned animals, would have cost the
state \$500 if destroyed. The ten ani-
mals were taken to Andover June 25,
and the year having expired we make a
report in accordance with the agree-
ment.

The cows were placed upon an isolat-
ed farm where they were given such
sanitary treatment for the promotion of
health as any dairy cattle should have.
This includes good ventilation, light,
exercise and moderate feed. These ani-
mals were kept in the open air both day
and night, except in stormy weather,
and for six months the milk of the entire
herd was thrown away or fed to pigs.
When these cattle were brought to the
town some objections were raised on ac-
count of endangering other herds, so in-
tense was the fear of tuberculosis, but
there being no objection on the part of
adjoining land owners, there was little
attention given to this unnecessary scare.
The bull, owing to his size and strength,
was kept in another section of the town
where he could be properly handled.
These animals were tested with tuber-
culin by a disinterested veterinarian
September 12, December 9, February
23, and those not previously killed, May
9. Five of the ten animals passed the
test successfully September 12, and five,
including the bull, failed to pass. Owing
to the inconvenience and expense of
keeping the bull, and the supposition on
the part of a few people that he was
badly diseased, he was killed soon after
the test in September, although there
was no previous indication of disease
from a careful physical examination. He
was killed for the purpose of the experi-
ment and carefully examined by a veteri-
narian in the presence of many people
but the examination failed to reveal any
more evidence of disease than can be
found in a large percentage of the cattle
in the country today. It was so infini-
tesimal as to require no consideration
upon any health basis and was strong
proof of the extravagance in destroying
animals by the test alone.

Only three of the nine remaining ani-
mals failed to pass the test applied De-
cember 9, and in one of the three the
disease had developed sufficiently to be
detected by physical examination, and
was condemned. These three were iso-
lated from the balance of the herd and
their milk thrown away. They were
again tested February 23 with no mate-
rial change in the result, and were taken
to Concord March 29 and destroyed and
examined in the presence of many wit-
nesses. The one condemned by physical
examination was found to be a well-de-
veloped case of tuberculosis and should
be destroyed. Although the other two,
killed at the same time, had failed to
pass the test, there was no physical evi-
dence of disease and they were destroyed
for the purpose of ascertaining their
condition and for the information sought
in the experiment. After a very thor-
ough post mortem examination by a
veterinarian, slight evidence of disease
was finally found, but it was even less
than that found in the bull and was in
such condition as to lead to the conclu-
sion that it had not only been arrested
but was on the way to ultimate recov-
ery. How much this result was due to
the treatment of the animals and how
much to the alleged curative qualities of
tuberculin is a matter of conjecture only.
There are no developments of science in
regard to the nature and characteristics
of bovine tuberculosis that warrant the
destruction of such animals.

The remaining six animals were tested
with tuberculin February 23 and May 9
and all passed the test each time. Their
condition from a physical examination
has the appearance of perfect health.
Since December 15 they have been in
the possession of a farmer who has fed
and cared for them for their income,
thus incurring no expense to the state.
To all appearances and from any form
of examination they are as healthy and
vigorous as any cattle in the state.

The year for which the experiment
was undertaken having about expired,
the following correspondence recently
passed between the commissioners and
Mr. Shedd, the contributor of the cattle,
which will be of general interest:

The cattle were returned to Mr. Shedd
June 24 and the experiment closed. This
special report is made public at this time
in order that every owner of cattle in
New Hampshire may have the earliest
possible information in regard to the
result of this experiment, the minute
details of which have been care-
fully noted and recorded and will be
found in the biennial report to be issued
at the close of the year.

When the matter of dealing with con-
tagious diseases of animals was placed
by the legislature under the direction
of the executive officer of the State Board
of Health, the State Board of Agricul-
ture, and the State Grange, it met a vig-
orous protest on the part of those officers
without avail. Finding the execution
of the law thrust upon us, we have en-
deavored to enforce its provisions with
due regard to the interest of the state in
the matter of public health, which should
be the ultimate result of all action legiti-
mately taken.

The policy outlined at the outset,
and resolutely followed to the present
time, has been sustained by the result
of this experiment and is being
adopted in the states around us where a
more radical policy has previously pre-
vailed. In the state of Massachusetts,
where more than \$750,000 has been
spent during the past four years and
where every animal reacting to the tuber-
culin test was destroyed, the whole
matter has been abandoned. In Con-
necticut, where the same extravagant
policy prevailed, the authorities are now
working upon practically the same line
as in New Hampshire. Other adjoining
states are falling into the same line. This
means the destroying of tuberculous ani-
mals, detected by a physical examina-
tion, and the advocacy of sanitary meas-
ures for the prevention of disease. We
have faith in tuberculin as a diagnostic
agent and depend upon it for certain
purposes, but not as authority for de-
stroying animals.

It is a fact worthy of note that dur-
ing all the unreasonable scare and ex-
travagance around us in regard to this
matter, the cattle commissioners of New
Hampshire have attended to every legiti-
mate call for action, made an inspection
of every herd where symptoms of tuber-
culosis were reported, destroyed every
animal detected from physical examina-
tion, advised in regard to changes neces-
sary for prevention of further develop-
ment of disease in every instance,—and
yet have expended but about one-half
the money appropriated and available
for this purpose. The balance is in the
state treasury and the cattle it would
have paid for are alive and causing dan-
ger to no one.

We believe action to the extent taken
in New Hampshire is advisable for the
protection of public health. We have
abundant evidence that there has been a
remarkable reduction in the bovine tu-
berculosis existing in New Hampshire
under the action taken and believe it to
be reduced to about the minimum point
consistent without expense. It can
never be eradicated but should be held
in check at the lowest possible ebb large-
ly by the sanitary conditions provided
by stock owners. We consider the herds
of the state exceedingly free from dis-
ease and they can be kept so if the
necessary precautions are observed.
Educational work in securing these con-
ditions is as essential as the killing and
burying of diseased animals. A reason-
able expenditure in both direction will
be found advisable.

tagious diseases of animals was placed
by the legislature under the direction
of the executive officer of the State Board
of Health, the State Board of Agricul-
ture, and the State Grange, it met a vig-
orous protest on the part of those officers
without avail. Finding the execution
of the law thrust upon us, we have en-
deavored to enforce its provisions with
due regard to the interest of the state in
the matter of public health, which should
be the ultimate result of all action legiti-
mately taken.

The policy outlined at the outset,
and resolutely followed to the present
time, has been sustained by the result
of this experiment and is being
adopted in the states around us where a
more radical policy has previously pre-
vailed. In the state of Massachusetts,
where more than \$750,000 has been
spent during the past four years and
where every animal reacting to the tuber-
culin test was destroyed, the whole
matter has been abandoned. In Con-
necticut, where the same extravagant
policy prevailed, the authorities are now
working upon practically the same line
as in New Hampshire. Other adjoining
states are falling into the same line. This
means the destroying of tuberculous ani-
mals, detected by a physical examina-
tion, and the advocacy of sanitary meas-
ures for the prevention of disease. We
have faith in tuberculin as a diagnostic
agent and depend upon it for certain
purposes, but not as authority for de-
stroying animals.

It is a fact worthy of note that dur-
ing all the unreasonable scare and ex-
travagance around us in regard to this
matter, the cattle commissioners of New
Hampshire have attended to every legiti-
mate call for action, made an inspection
of every herd where symptoms of tuber-
culosis were reported, destroyed every
animal detected from physical examina-
tion, advised in regard to changes neces-
sary for prevention of further develop-
ment of disease in every instance,—and
yet have expended but about one-half
the money appropriated and available
for this purpose. The balance is in the
state treasury and the cattle it would
have paid for are alive and causing dan-
ger to no one.

We believe action to the extent taken
in New Hampshire is advisable for the
protection of public health. We have
abundant evidence that there has been a
remarkable reduction in the bovine tu-
berculosis existing in New Hampshire
under the action taken and believe it to
be reduced to about the minimum point
consistent without expense. It can
never be eradicated but should be held
in check at the lowest possible ebb large-
ly by the sanitary conditions provided
by stock owners. We consider the herds
of the state exceedingly free from dis-
ease and they can be kept so if the
necessary precautions are observed.
Educational work in securing these con-
ditions is as essential as the killing and
burying of diseased animals. A reason-
able expenditure in both direction will
be found advisable.

Fertilizer for Asparagus.

ED. MASSACHUSETTS PLOUGHMAN:

I have a small asparagus bed, an old
one, size 18x51 feet. I see a writer ad-
vising using fine ground bone and muriate
of potash; should it be in equal parts,
and how much would be needed for fer-
tilizer, to avoid weeds. Would a barn
yard dressing be needed occasionally
after using the above? The dressing that
I put on last fall was not spaded in this
spring. Should it be removed now
the season is over, before any more fer-
tilizer is applied? Would it be likely to
make any difference in the yield of the
bed, not removing the dressing?

INQUIRE.
[Whatever dressing is spread on an
asparagus bed in the autumn should
be spaded in early the following
spring, or removed. If the dressing
be fine and well decomposed it would be
best to spade it in, but if coarse it should
be removed from the bed. Asparagus
requires heat, therefore any mulching
that cools the ground or prevents the sun
from heating it is an injury. Ground
bone and ashes or muriate of potash
is the best dressing; 1700 pounds of
bone and 300 pound of muriate of pot-
ash to the acre will produce good re-
sults.]

POULTRY.

Summer Care of Turkeys.

After young turkeys are three weeks old they can be fed wheat screenings and other cereals. A mixture of corn meal and wheat bran moistened with milk is also much relished by them at this age. After they are several months old, if left to run at large, they will readily find their own food in the form of grasshoppers, etc.

The greatest difficulty in caring for young turkeys is to keep them free from lice and dampness, both being fatal to them. They should be kept in their coop in perfectly dry quarters during the night and until the dew is off the grass in the morning, after which they may be permitted to enjoy their freedom.

The hen with her young should be examined occasionally, and if found to be infested with lice, she should be dusted with insect powder. These are essential in successful turkey raising and should be carefully looked after. A fine flock of turkeys is well worth the care it requires to raise them.

Give the breeding flock plenty of room to exercise, nothing less than full range of the farm, if you are in possession of one. They will need but little feed during the summer months if allowed to roam about the fields where they please. During the winter months they should have access to plenty of food in the shape of various kinds of grain. Turkeys cannot be overfed; they instinctively eat only as much as they need.

Roosting places should also be provided for them, in the form of sheds. Turkeys always seek a high roosting place, generally resorting to limbs of trees in order to escape danger from enemies that might reach them from the ground. The limbs of trees, however, are not suitable roosting places as the turkeys are thus exposed to cold and severe storms, therefore they should be trained to roost in a shed of some kind.

C. C. SHOEMAKER.

Poultry Notes.

It doesn't pay to caponize cockerels of the small breeds, but the large breeds will grow fully one-third larger than the ordinary bird of the same breed, and the price is considerable higher in city markets. The operation is not hard to learn, but requires considerable time until after long practice.

A critical period with chickens is the feathering time. They should be fed often and kept from dampness.

A good poultry manager is always among his fowls and almost by instinct finds out what they want.

It is too late now to set hens expecting to raise pullets that will lay before cold weather. Might as well wait until September and raise some fall chickens. Fall hatched pullets will make great spring and summer layers, and the cockerels bring a good price as spring roosters.

Have plenty of fresh air in the roosting pen. Put wire netting in place of the windows and doors.

Carbolic powder is the nests is a good lice preventive.

Too many breeds of chickens on a farm are a nuisance. Better stick to one kind, or two kinds for a cross.

Refuse fish fed to growing chickens or ducks will push them along at a rapid rate. Fed to older fowls it is likely to flavor the eggs.

An old tomato can with a deep notch in the edge, turned up side down in a saucer makes a good chicken fountain.

For old fowls use a large dish. One is large as a water-pail is better than anything smaller. The Asiatias can drink out of such a fountain even if it is placed on a stand six or eight inches high and smaller breeds can drink out of it set on the ground.

Portable houses made so that they can be moved by one person are the best things for chicks. There should be good ventilation and low roosts. The house must be made tight enough at night to keep out pests.

Move the chickens at night and keep them shut in their new quarters for a few days and there will be no trouble about changing them from house to house.

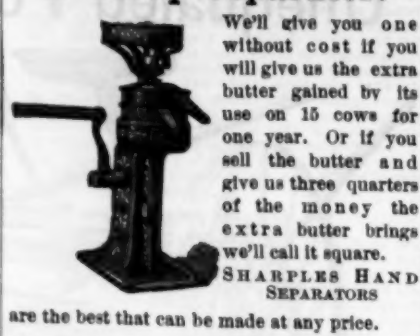
Such cheap meat as pig's liver is a good and cheap thing for chicks.

Chickens that spend all their life in the field where they are kept are not likely to get out as soon as chickens that are moved from place to place.

In throwing hard grain in the pens care should be taken that all get an equal chance, not casting the grain all in one spot where the leaders will monopolize it and keep the rest away.

Four quarts of grain food per day will suffice for from 20 to 30 hens, according to size and breed.

A Cheap Separator.



are the best that can be made at any price.

BRANCHES: P. M. SHARPLES, West Chester, Pa.

French poultrymen make a great item of punctuality in time of feeding, and it is agreed everywhere that fowls will not thrive so well under very irregular feeding.

A good summer morning feed is Indian meal and shorts, half and half with an addition of a few handfuls of meat scraps two or three times a week.

When the hens stop laying, those not wanted for breeding can be fattened up a little for market. Put them in small coops, holding ten to twelve each. Feed three times a day corn meal, grease, cheap molasses and other fattening foods, giving them what they will eat at each meal but no more. They will fatten in a very few days.

Hens will eat coarse, tough green food if it is chopped up a little. Long grass, pea vines, bean pods, weeds, cabbage leaves, tender corn stalks, can be used if cut very short and fine in the feed cutter. If green stuff cannot be obtained, vegetables will take their place.

Laying hens need green feed, but they can get along without it better than without meat.

If the feed trough is long enough for the number of hens there will be no need of slating the top to keep them out of it. It is crowding that makes the hens get into the trough.

With plenty of milk there will be no need of meat or other animal food, but water should be given also.

Rye is not much of an egg food and should be fed only sparingly for a change.

Good stuff to keep things dry about the roosts is road dust from the gutters. It is a good plan to put by a few barrels of it for winter use.

When green stuff is scarce hens will sometimes eat hay out of the nests. In such cases use wood shavings or excelsior filling.

A good nest is made with sod at the bottom of the box, and hay, straw or shavings on top.

Turn the entrance of the nest toward the wall to secure seclusion. Hens are not likely to begin egg eating if the nesting place is fairly dark.

Poultrymen agree that ducks are easier to raise than chickens, and less liable to disease. The main danger is from excessive dampness when in the downy stage. Pekin ducks do not abnormally need water except to drink, least of all when they are young. Keep the youngsters in a dry pen the same as chickens with plenty of water to drink.

Excellent food for growing turkeys is thick curdled milk mixed with grain and boiled potatoes. If the turkeys pull through the first six weeks they will give no trouble. Keep them dry.

A good poison to use for skunks is a lump of lard with strychnine inside. It is a dangerous poison to use if dogs and cats are around. Use it at night.

A remedy for chicken cholera said to be very effective is an ounce each of glycerine and water, and ten drops of carbolic acid. Give five drops at once and repeat dose every twelve hours.

If chicks are effected with gapes put them into barrels and throw dry slack lime among them. The dust will make them cough out many of the worms.

Preservation of Eggs.

The Berliner Markthallenzeitung reports about experiments made for the purpose of securing the most rational method for preserving eggs. This being a topic of general interest, I beg to give hereafter an extract of the results obtained, as described in the said journal, says a commercial agent in a consular report.

Twenty methods were selected for these experiments. In the first days of July, four hundred fresh eggs were prepared according to these methods (twenty eggs for each method), to be opened for use at the end of the month of February.

Of course, a most essential point for the success of preservation is that only really fresh eggs be employed. As the most infallible means of ascertaining the age of the eggs the experimenter

designated the specific weight of the same. With fresh eggs it is from 1.0784 to 1.0942. If the eggs are put into a solution of 190 grams (4.23) ounces of common salt in 1 liter (1.0567 quarts) of water, the specific weight of which solution is 1.073, all the eggs that swim on this liquid weigh less, and consequently are not fresh. Only those that sink should be used for preservation.

When, after eight months of preservation, the eggs were opened for use, the twenty different methods employed gave the most heterogeneous results:

- (1) Eggs put for preservation in salt water were all bad (not rotten, but unstable, the salt having penetrated into the eggs.)
- (2) Eggs wrapped in paper, 80 per cent. bad.
- (3) Eggs preserved in a solution of salicylic acid and glycerin, 80 per cent. bad.
- (4) Eggs rubbed with salt, 70 per cent. bad.
- (5) Eggs preserved in bran, 70 per cent. bad.
- (6) Eggs provided with a cover of paraffin, 70 per cent. bad.
- (7) Eggs varnished with a solution of glycerin and salicylic acid, 70 per cent. bad.
- (8) Eggs put in boiling water for twelve to fifteen seconds, 50 per cent. bad.
- (9) Eggs treated with a solution of alum, 50 per cent. bad.
- (10) Eggs put in a solution of salicylic acid, 50 per cent. bad.
- (11) Eggs varnished with water glass (Wasserglas) 40 per cent. bad.
- (12) Eggs varnished with collodion, 40 per cent. bad.
- (13) Eggs covered with lac, 40 per cent. bad.
- (14) Eggs varnished with sward, 20 per cent. bad.
- (15) Eggs preserved in ashes of wood, 20 per cent. bad.
- (16) Eggs treated with boric acid and water glass, 20 per cent. bad.
- (17) Eggs treated with manganate of potassa, 20 per cent. bad.
- (18) Eggs varnished with vaseline, all good.
- (19) Eggs preserved in lime water, all good.
- (20) Eggs preserved in a solution of water glass, all good.

The last three methods are consequently to be considered the best ones, and especially the preservation in a solution of water glass, as varnishing the eggs with vaseline takes too much time, and the treatment with lime water sometimes communicates to the eggs a disagreeable odor and taste.

There is, however, one drawback with eggs preserved in a solution of water glass, viz., that the shell easily bursts in boiling water; this may be avoided by cautiously piercing the shell with a strong needle.

Common Talk.

The front, side and back yards on the average farm are an eye sore to the possessors thereof as well as the passers-by. Why anyone will persist in using the front yard or lawn as a wood-yard and lumber-pile, the side yards for pig and calf pens, and the back yard as a receptacle for old stoves, tin cans, ash-heaps and all kinds of debris that can be accumulated around a farm house, is a mystery to many. I do not know who is to blame for this state of affairs—the farmer or his wife, but on such farms the matter ought to be seen to and at once. One cause for this neglect is that there is usually a rush of work on the farm just about the time these yards need attention and the farmer grows neglectful of the little touches that might make the home surroundings beautiful. Another is that people who live in the country imagine that no one pays much attention to a farm yard, and their own is as good as their neighbors' anyway. They need an example of a really beautiful country yard to spur them on to good work. This they might get when visiting town or city, where on the best streets beautiful well kept door yards are the rule, but they have drifted into the way of thinking that it is all right for town people to fool around fixing things up but as they live away out in the country where no one sees them there is no use in it. There may not be much cash flow into ones coffers from a well-kept lawn or yards, but there is an immense amount of satisfaction to an appreciative family.

Mr. Farmer, I wish you would for the sake of your own family, your neighbors and the entire class of farmers, move, first of all the rubbish from your back yard, clean it up thoroughly, and if your wife and daughter are the women I take them to be they will immediately see what a fine place it is for a few flower beds or borders. As they go back and forth in the performance of

their daily duties these flowers will shed the much needed brightness into their lives and the odor from them will be very grateful to those who must perforce inhale more than their share of frying meat and boiling vegetables.

Mrs. Farmer, as your husband has shown his willingness and desire to make his home and yours as pleasant as is in his power, don't let him be in advance of you in this work of reform.

Remember he is the bread winner, is hard working and busy and has not the time to look after many matters that seem to him to be of minor importance, so it is to you he must look for suggestions along this line. Men love and long for a pleasant home more even than women, I believe, but they do not know so well what it takes to make one by far. So come with me to the front of the house or better yet the main road, that we may see if all has been done to make your home beautiful, attractive and valuable that can be done. I would love to have you look at it with an unprejudiced eye.

Next to the back-door yard the most important and worst neglected part of the farm is the approach from the main road to the house. "As no one liveth to himself alone," it is our duty as it should be our pleasure to make our outside appearance as prepossessing as possible. One well-kept highly cultivated farm adds an actual money value to every other farm in the neighborhood.

In looking at the house from the road do we see a well-kept driveway shaded on either side with majestic trees, or is it a muddy lane running through a filthy barn lot with nothing but a foot path from this to the house, showing conclusively that visitors as well as the family must make part of each journey to and from the house on foot? And when we reach the door yards are they well shaded and kept? Is there evidence of flowers in abundance all during the season? Are there signs of thrift, industry and contentment at every step we make, or do we go through a hingeless gate into a yard full of all adornment and beauty and of unsightly rubbish, everything looking forlorn and poverty stricken?

If the latter is the case are you surprised that yours is a life of monotony, isolation and drudgery? If you have thought and sought for no break in the daily routine of housework need you be surprised at the monotony of farm life? If you have nothing beautiful and attractive in your home life, nothing to inspire others to live a higher life than yours are you astonished that you are left alone in dread isolation? And if you go along day after day washing dishes and cooking in the same old pans and kettles, looking out upon the same piles of trash and ash barrels and wading back and forth in the same old yellow clay, can you expect to feel your work anything but drudgery, and degrading drudgery at that?—Cal. Henchman, in the Farmers' Guide.

Hastening the Maturity of Garden Crops.

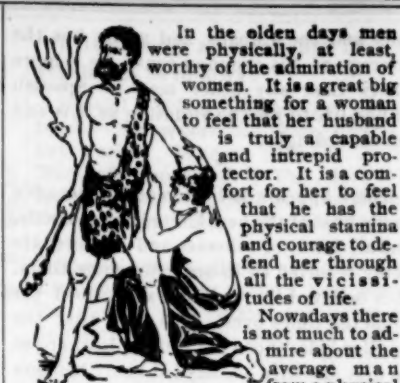
The desirability of having crops both in the home and in the market garden mature as early as possible need not be discussed. We cannot get our supply of fresh green stuff for our tables too early for our impatience, nor too early in market for greatest profits. The question is only one of the most effective means to accomplish that end. Mr. H. E. Stockbridge in the MASSACHUSETTS PLOUGHMAN, says:

It must be remembered that all nitrogenous foods, by the tendency to produce rank and foliaceous growth, result in retarding the development of crops to which they are supplied in excess. The obvious lesson is that whatever rapid development is desired, the excessive use of nitrogenous manures should be avoided, and that potash, which has an equally pronounced effect in hastening maturity, should be the predominating constituent of fertilizer supplied.

Mr. Stockbridge's conclusion should not be given a too general application. There are crops in which the early development of foliage, or of root, is just what we are after. Among these crops we have spinach, lettuce, dandelion, onions, cabbage, kohl-rabi, radishes and others. To these a full supply of available nitrogen must be given. We want the ground loose, rich and warm. It is quick and succulent growth that we want. This is best secured by means of old stable manure or compost applied in previous seasons. The application of moderate quantities of nitrate of soda (say 200 or 250 pounds per acre) in the early spring will often help wonderfully in hastening the early development of these crops, while that of mineral plant foods (potash and phosphoric acid) has more rarely a striking effect.

Irish potatoes seem to belong to a class by themselves in this respect. Possibly we could hasten the early crop somewhat by early applications of nitrate of soda, but we usually prefer to depend on the warm soil and the proper preparation of the seed tubers to accomplish the same object. Mr. Stockbridge says:

Irish potatoes are susceptible to material modification in time for matur-



In the olden days men were physically, at least, worthy of the admiration of women. It is a great pity that something for a woman to feel that her husband is a capable and intrepid protector. It is a comfort for her to feel that he has the physical stamina and courage to defend her through all the vicissitudes of life.

Nowadays there is not much to admire about the average man from a physical standpoint. He may be a moral and a mental giant, but the flesh of ill-health is weak, and he is probably a physical coward. It is not rare for a sickly man to be a brave man. His spirit may be willing but his body is weak. That is the man's own fault. Any man can be healthy who pays a little common sense attention to his health when he has it, and when he gets a little out of sorts, take the right remedy. Many of the diseases that afflict mankind are traceable directly to indigestion, torpidity of the liver and impurities in the blood. Dr. Pierce's Golden Medical Discovery is the greatest medicine for disorders of this nature. It strengthens a weak stomach, corrects all disorders of the digestion, gives edge to the appetite, invigorates the liver, purifies and enriches the blood and tones up and invigorates the nerves. It searches out disease germs, kills them and carries them out of the system. It is the great blood-maker, flesh-builder and nerve-tonic and restorative. It makes strong, healthy men out of weak, sickly invalids. Medicine dealers sell it and no honest dealer will urge a substitute upon you.

"I have been taking Dr. Pierce's Golden Medical Discovery and Bilets and must say they have worked wonders in my case," writes Mr. L. L. Pack, (Box 175), of Hinton, Summers Co., W. Va. "I feel like a new person, in fact, I think I am well, but will take one more bottle to make sure the cure is permanent. I can speak too highly of the 'Discovery.' I can eat anything now without misery in my stomach. I have gained some weight and feel like a chum on me, but when I first began to take it I felt a little worse for a few days; but pains through my body and bones, but now I am after taking the medicines four or five days."

ing by simply placing the seed potatoes in a place exposed to the sunlight for some two weeks previous to planting, or until the tubers have become green in color and the sprouts have well developed. I have often found a difference of ten to fourteen days in the time of maturing by this treatment. In after cutting or handling the tubers a little care must be exercised that the sprouts are not injured.

Then there are crops which we grow for their fruits or seeds, among them especially tomatoes, peas, beans, sweet corn, melons and other vine fruits, etc. Again I will quote from Mr. Stockbridge:

Most plants the seeds, or seed envelope of which form the edible portion, continue in bloom and go on producing flowers for considerable period so that blossom and mature fruit are usually found on the same plant. If, therefore, the growing or blossom-bearing stem be pruned or clipped soon after the earliest blooms appear, the strength and vitality of the plant is forced into the maturing of these, rather than being allowed to find outlet in the formation of new ones, and the maturity of those earlier blossoms will be materially hastened. Tomatoes, peas, pole-beans, cucumbers, melons and egg-plants may be thus treated with the result of producing edible fruit from a week to ten days earlier than if the natural development had been allowed to continue. The maturity of tomatoes may be easily hastened from one to two weeks by selecting seed from full-grown but green fruit. Sweet corn, which is usually supposed to be beyond artificial means of control as to ripening, I have found to be very susceptible to treatment, but with less difference in time effect. The silk, or female flower, always matures some days earlier than the mass of pollen, on the tassels, is ready to fall and fertilize the silk. If the plant is well jarred, at this period, by a blow struck with the hand or stick as the operator passes between the rows, the pollen will be shaken from its hold and fall upon the silk considerably sooner than when left to nature and the wind. As a result, the ears are ripe earlier than would otherwise be the case, a difference on the average of three to four days being secured.

With all these crops the use of mineral manures, especially of phosphates in soluble form, is frequently a most effective means of hastening maturity. Excessive richness of soil is not always, nor even usually, desirable for growing these crops. A warm, loose soil of medium fertility is just right for tomatoes, bush beans, peas, cucumbers, melons and kindred crops. Here is where we do not want that excess of nitrogen. And yet the application of a small quantity of nitrate of soda around each plant at time of setting them in open ground has often been found of service in forwarding tomatoes. Only last season I noticed that the plants thus treated began new growth much more promptly after their transfer to open ground than plants that had no nitrate given them. In the treatment of these different crops there is always room for the exercise of good judgment. They differ in their requirements.

Dwarfish plants of all kinds, such as the low-growing peas, the upright or so-called tree-tomatoes, etc., can stand richer ground (such containing more nitrogen) than will the tall-growing ones of the same kind, cucumbers, melons, water melons, etc. All time beans like very rich soil, and my experience with egg plant shows me that I can hardly have the ground too rich for them. It is probably true that the use of rather green seed will make tomatoes a little earlier, although the strain is likely to run out quickly if the practice is continued.—T. Greiner in Practical Farmer.

Raise Hens

People living just outside cities and large towns can (owing to their nearness to markets) make large profits in the poultry business. No other occupation pays better or is easier to conduct. It can be successfully carried on by women or boys and girls, provided they have a knowledge of the right methods of management, feeding, etc. This may easily be gained by faithful study of that best and most practical poultry paper,

Farm-Poultry

It teaches how to make money raising poultry and eggs for market. It is edited by practical poultry raisers, who tell their readers how to prevent and cure all poultry diseases; bring pullets to early laying maturity; make hens lay when prices are highest; build the best houses and yards; keep poultry free from vermin; hatch strong chickens in incubators; caponize and dress poultry for market.

Published semi-monthly.

Price, \$1.00 a year; 50 cents for six months. Sample copy and a 25c. book, "A Living from Poultry," sent for 12c. in stamps.

I. S. JOHNSON & CO.,
Farm House Bldg., BOSTON, MASS.

BIG WAGES FOR YOU

Every Town, in the U. S. and Canada, is now distributing \$100,000 in Premiums, Prizes and Cash. We give Bicycles, Automobiles, Watches, Guns, Pianos, Organs, Decks or Dollars for a few hours work. Permanent employment if you want it. Now is the time. A. N. KROGER & CO.,
100 N. 3rd St., St. Paul, Minn.

CRANBERRY BOG FOR SALE.

One of the best Cranberry Bogs in Plymouth County for sale. Located near the ocean and a railroad station, good stream of water through bog; easy to drain and can be constructed for about one half what it usually costs; plenty of time growing on it in the natural state that produces fruit of better quality than most of the Cape cranberries. For particulars apply to
EDMUND HENCKY, Cedar Hedge Farm, Hingham, Mass.

SEPARATOR BARGAINS

I have on hand and for sale a large number of SECOND HAND CREAM SEPARATORS. Of various sizes and different makes. These machines are in first class condition, having just come from the repair shop. Address
P. O. BOX 856, Philadelphia, Pa.

Dairying for Profit, OR THE POOR MAN'S COW.

For 15 cents.

We have made arrangements with the publishers to furnish our subscribers with this valuable little book for only 15 cents. The author, Mrs. Jones, is one who has made a success in this line and knows what she is talking about. She writes a concise, practical way, treating only of what she has learned in her own experience, which has been a long and varied one, and covering fully the whole subject. Any of our readers who keep cows, whether one or one hundred, will do well to read this book. Send fifteen cents to the Mass. PLOUGHMAN Co., Boston, Mass.

MOSELEY'S OCCIDENT CREAMERY

FOR TWO OR MORE COWS.
PERFECT CREAM SEPARATOR.
MADE IN U.S.A.
MOSELEY & FRITCHARD MFG. CO., CLAYTON, IOWA.

Owners of Farms

If You are desirous to SELL, RENT, OR EXCHANGE

Your farm, WITH OR WITHOUT privilege of buying, now is the time to list them with us. We are constantly having calls for such, and make a specialty of FARM PROPERTY. Send full particulars to
MASS. PLOUGHMAN OFFICE.

Milk Route

FOR SALE OF 25 cans 2 extra fine horses 7 and 8 years old, new wagons, pump, etc. Also a cooler, sink, 3 sets small cans, 135 large cans some jars. Single harness, blankets, etc. Milk retained for 6 and 7 years around nearly all family trade. Less than 8 miles of Boston. Apply to
JAS. A. WILLEY,
178 Devonshire St., Boston.

Gasoline Engine

Can be started in two minutes. Noiseless, smoke, dirt, ashes or danger.
CATALOGUE SENT FREE.
Chas. J. Jager Co.,
174 High St., Boston, Mass.

TURKEYS.

How to Grow Them.

No book in existence gives an adequate account of the turkey—its development from the wild state to the various breeds, and complete directions for breeding, feeding, rearing and marketing these beautiful and profitable birds. The present book is an effort to fill this gap. It is based upon the experience of the most successful expert in turkey growing, both as breeder of fancy stock, and as raisers of turkeys for market.

The prize-winning papers out of nearly 200 essays submitted by the most successful turkey growers in America are embodied, and there is also given one essay on turkey culture, from different parts of the country, including Canada and New Brunswick, that the reader may see what ways have proven successful in each locality.

Profusely Illustrated. Cloth, 12mo. Price, postpaid, \$1.00.

Address Mass. Ploughman, Boston.

SHERMAN HOTEL

132 and 154 EAST 42d ST.
Near Grand Central Depot
Bet. Lexington and Third Aves., NEW YORK
Meals at All Hours, Rooms from Fifty Cents Upwards. Open Day and Night.
French, German, Italian and English Spoken.
ALEX. C. SHERMAN Proprietor.

Transfer Hotel

JUST OPENED.
Rooms, Restaurant and Board, at Reasonable Rates.
187 4th St., NEW YORK CITY.
CHAS. BECKMAN, Prop.

REDNER'S Restaurant & Oyster House.

COR. 42d ST. & LEXINGTON AVE., East of Grand Central Depot, NEW YORK.
Meals or Lunch at All Hours.
Tables Reserved for Ladies.
PRICES MODERATE.
Neatly Furnished Rooms. Latest Improvements.
—MODERN CAFE—

AMERICAN HOUSE

Handover St., near Scollay Sq.
Market of the large hotel in Union Station, Boston, Boston, is the largest and most comfortable. Largest rooms in the city for the price (\$1.00 per day and upward). Steam heat and electric light in every room in the house. \$10.00 has just been spent on the house, giving it a new and more modern appearance and convenience at moderate prices.
EUROPEAN PLAN. The special breakfast at 10 cents and table d'hôte dinner at 10 cents are famous.
C. A. JONES

STONINGTON LINE TO NEW YORK.

Express train leaves Park Square Station week days at 7:00 P.M., arriving in New York at 7:00 A.M. in time to connect with all early trains. Steamers Maine and New Hampshire in commission.
Tickets and State Rooms secured at station Park Square, Boston, and 3 Old State House, Boston.
L. R. PALMER, Agent, Telephone No. 1540.
J. W. MILLER, O. H. BRIGGS, President. Gen. Pass. Agt.

Quincy Mutual Fire Insurance Co.

INCORPORATED IN 1861.
COMMENCED BUSINESS IN 1861
CHAS. A. HOWLAND, WILLIAM H. FAY, Jr., President. Secretary.
CASH FUND APRIL 1, 1898, \$625,000.00
SURPLUS OVER REINSURANCE, \$370,000.00
AMOUNT AT RISK, \$34,575,248.00
Losses paid during past year, \$36,024.48
Dividends paid during past year, \$72,493.25
GAIN IN SURPLUS DURING PAST YEAR, \$30,000.00

IF YOUR CHICKENS Don't Grow

Read this new book, "THE NEW POTATO CULTURE," by ELMER S. CARMAN, editor of THE RURAL NEW-YORKER; originator of the Foremost of Potatoes—Rural New-Yorker No. 2. This book gives the result of 17 years' experiment work on the Rural Grounds. How to increase the crop without corresponding cost of Production. Manures and Fertilizers. The Soil. Depth of Planting. Seed Culture. The Rural Trench System. Varieties, etc. It is respectfully submitted that these experiments at the Rural Grounds have, directly and indirectly, thrown more light upon the various problems involved in successful potato culture than any other experiments which have been carried on in America. Price, cloth, 75 cents; paper, 40 cents; prepaid.

THE NEW POTATO CULTURE.

Second Revised Edition. By ELMER S. CARMAN, editor of THE RURAL NEW-YORKER; originator of the Foremost of Potatoes—Rural New-Yorker No. 2. This book gives the result of 17 years' experiment work on the Rural Grounds. How to increase the crop without corresponding cost of Production. Manures and Fertilizers. The Soil. Depth of Planting. Seed Culture. The Rural Trench System. Varieties, etc. It is respectfully submitted that these experiments at the Rural Grounds have, directly and indirectly, thrown more light upon the various problems involved in successful potato culture than any other experiments which have been carried on in America. Price, cloth, 75 cents; paper, 40 cents; prepaid.

For Sale by Mass. Ploughman.

MASSACHUSETTS PLOUGHMAN

BOSTON, JULY 2, 1898.

Persons desiring a change in the address of their paper must state where the paper has been sent as well as the new direction.

HALF an hour of solid study per day leaving out the extra busy summer months will make a well informed farmer in a very few years.

If fortunate enough to have among your friends a thoroughly good farmer it will be wise to talk affairs over with him often. This is one of the few kinds of talking that pays well.

ONLY a reckless farmer will build additions on his house and put on style generally, while some part of his farm remains unprofitable, just because a little money is needed to improve it.

A FLOWER garden helps considerably to live up and brighten life on a farm. Have flowers on the dining table every day, and plenty of them in the window all winter, and note the effect.

A LARGE and productive estate in England was recently sold for \$30 per acre; less than one third its former value. This shows the depression caused by competition of American agriculture.

THE most thorough way to destroy insects on melon and squash vines consists in covering the hills with small, tight wooden boxes, and putting under each box a saucer containing two teaspoonfuls of bi-sulphate of carbon. Leave the box on about one hour.

THERE are several millions of farmers in the United States, and all of them know how to raise the common crops pretty well. That is the reason why it doesn't pay much to raise what every body else does. There is more money in learning all about some crop that is comparatively little grown.

DON'T choose farming unless you like it. There is money in anything that a man will earnestly and persistently devote himself to, but he who is prejudiced against farming or any other business will never do his best in that line. A man who takes up a business that he doesn't like, for money, will never fully succeed, and will never enjoy himself as he might.

THE silo is not for everybody. Farmers who have wet, heavy, natural grass land and good pasture, and who have raised hay all their lives will be safe to hold on to the crop, and let the youngsters experiment with ensilage. But let not the men who are too old to learn new ways talk against the silo. Like other improvements it is all right for the right conditions.

A BORN farmer used to New England conditions cannot bear to see land suffering for manure any more than he can endure to see a hungry milk cow. He feels instinctively that if the soil or the cow are worth keeping at all they are worth feeding well, and besides that consideration there is an inherent delight in seeing thrifty crops and animals. He would rather go without fine carriages and handsome clothes than to see anything on his farm starve, even the soil.

THE tuberculin test seems to have received a knockout blow from the Massachusetts legislature. The new bill not only discredits the test but forbids its requirement in cities and towns in connection with the milk supply. This retirement of the test may be only temporary, pending its investigation by the board of health. The scientific world differs more than ever as to the actual merits of tuberculin as a test for tuberculous diseases. But experiment and opinion seem to tend toward lessening the high claims formerly made for this method. It is now thought possible to eradicate the disease from herds by separating diseased animals and proper care in the management of the herd. It is also considered possible that mild cases of the disease which would be condemned by the tuberculin test, may often recover themselves under right conditions. Tuberculin will still be used quite extensively as a test in private practice, but the probabilities are against its compulsory employment in a wholesale manner as during the past five years. To cap the climax of tuberculin hostility, the senate before adjournment, voted down the bill above outlined. This leaves the cattle commission nominally in office but without a cent of money to carry out their duties. Hence they can do nothing at all to carry out the existing law unless the governor authorizes them to go ahead and trust to a future appropriation from a less hostile legislature. The present legislature has adjourned last week nothing can be done in the line of cattle commission legislation until next winter. Evidently the days of costly state tuberculous campaigns are over for the present.

STATE OF OHIO, CITY OF TOLEDO, ss.
LUCAS COUNTY.
FRANK J. CHENEY makes oath that he is the senior partner of the firm of F. J. CHENEY & CO., doing business in the City of Toledo, County and State aforesaid, and that said firm will pay the sum of ONE HUNDRED DOLLARS for each and every case of CATARRH that cannot be cured by the use of H. L. L.'S CATARRH CURE.
Sworn to before me and subscribed in my presence, this 6th day of December, A.D. 1896.
A. W. GLEASON,
Notary Public.
H. L. L.'s Catarrh Cure is taken internally and acts directly on the blood and mucous surfaces of the system. Send for testimonials, free.
F. J. CHENEY & CO., Toledo, O.
Solely Druggists, 75c.

CURRENT TOPICS.

The American troops have practically surrounded Santiago, batteries have been planted on the heights above the city not more than seven miles away, and the fate of unfortunate Santiago seems to be sealed. It is expected that the city will be in the hands of the Americans before the week is over, although its defenses are reported as being very strong. It has been discovered that the Merrimac which was sunk at the mouth of the harbor, has not stopped it so effectually as was at first supposed, for the Vesuvius was able to sail either side of it easily. This fact may be taken advantage of when the attack is made upon Santiago. Hobson and his men are confined in the city instead of Morro Castle and are said to be well treated.

The first division of troops under command of General Lawton, were landed Wednesday of last week at a point near Baiquiri, Cuba, about fifteen miles east of Santiago. The Spaniards made no opposition worth mentioning, and after firing a few aimless shots fell back to the city. The advance guard of which the Second Massachusetts formed part, pushed the Spaniards vigorously, while the remainder of the troops were landed. On Thursday night the Americans were in possession of Juragua, which the Spaniards had to abandon before they could carry out their purpose of setting the town on fire. In all these movements the Cuban insurgents under General Garcia co-operated energetically.

The sharpest fight took place on Friday morning within five miles of Santiago. Our troops were victorious but lost sixteen killed and sixty missing or wounded. Among the slain were Captain Capron and Lieutenant Hamilton Fish, Jr., of the Rough Riders. The large American loss was caused by the fact that the Americans fell into an ambush formed by the Spanish who were entirely concealed while our men were in plain view of their enemy. In spite of the suddenness of the attack, coming so soon after their landing on Cuban shores, when they had had no opportunity for recruiting or becoming acclimated, they stood their ground with great courage and when reinforced, made a brave dash which routed the enemy and drove them back to Santiago.

Re-enforcements are being hurried to General Shafter. The auxiliary cruiser Yale, carrying one entire regiment and part of another, left Hampton Roads on Thursday, and the Harvard Saturday. Among these re-enforcements on the Harvard is the Ninth Massachusetts.

Naval operations against both Guantanamo and Santiago have been vigorously pushed this week. Ten submarine mines in the former harbor were successfully ripped up by boats from the Marblehead and other vessels. The Texas destroyed the Zocapa battery near Santiago, in the performance of which duty she lost one man killed and several wounded.

An aggressive movement has been decided upon which, it is hoped, will have the effect of hastening the war to a close. This is to form another squadron and send it over to Spain, and strike at the Spanish coast. The new squadron is called the Eastern Squadron, is to be under command of Commodore Watson and will include the battleships Iowa and Oregon, the flagship Newark, the cruisers Yosemite, Yankee and Dixie, besides several colliers. This move was determined upon when it was authoritatively reported that the Cadiz fleet had reached the Isthmus of Suez, where it was the intention to coal, evidently for a long voyage. The supposed object of the expedition appears to be the Philippines. It is a strong fleet, but it is doubtful if they will be able to obtain coal at Port Said, as it is a neutral port. During the absence of the Spanish fleet is thought to be a favorable time for an American fleet to visit the coast of Spain.

The Spanish Cortes has been sent home, the queen regent signing a decree of prorogation on the advice of Sagasta. The debates preceding the prorogation were stormy ones, and it was significant that the two houses adjourned in silence, the customary cheers for the crown being omitted. All constitutional guarantees having been suspended and martial law proclaimed, Sagasta was thereby invested with dictatorial powers. That he will possess them long or exercise them successfully is more than doubtful. The Cortes, in which he had an overwhelming majority, was a far from docile body, and he had to abandon his bill for reorganizing the army. Its purpose was to make military service compulsory by repealing the clauses of the present law which permit conscripts to purchase exemption on the payment of \$250.

The unwillingness of Premier Sagasta's followers to support him in such a crisis as now confronts Spain is pretty good evidence of the unpopularity of the war with the thinking element of that country. Madrid despatches intimate that Sagasta will soon give up office and will be succeeded by a ministry whose object will be to secure a speedy peace. In the natural order of things in Spain, Sagasta's successor should be a military man, for the concurrence of the army is absolutely essential to the success of any policy, and its acquiescence in peace might be forced by a general popular with the soldiers and at the same time capable of enforcing obedience.

Spain has but one man of celebrity of this stamp, and that is Marshal Campos, who, he is said to his credit, is far more of a statesman than most Spaniards of civil antecedents. Had his advice of twenty years ago been followed, autonomy would have followed the pacification he then negotiated. Campos is deservedly popular both with his own country-

men and the Cubans, and as he has the courage of his common sense, he is more likely than any other man in Spanish public life to see the situation as it is and act accordingly.

There appears to be a general scramble to get hold of the new United States bonds, and all kinds of schemes and devices are being resorted to in order to secure them. It is believed they will be subscribed for some ten times over. The fact that the smaller bids, those for \$500 or less, are to be first attended to, has led many bankers and banking houses to pay men anywhere from fifty cents to \$3 to subscribe for \$500 worth of the loan. The treasury department is using every effort to circumvent this scheme. All applications must be signed by the applicant and every day many applications are returned because of a violation of this rule. No person can send more than one subscription and if a second one is received, it is returned.

An interesting subject considered at the insurance convention held recently was the report on tabulation of experience with commercial travellers and farmers. Considerable argument of the delegates was brought to bear upon the difference of risk upon the commercial traveller and the farmer. The man who travels is considered a "glit edge," while that of the farmer is considered a very poor one. The statistics of the two classes for one year show that out of 210,381 commercial travellers insured only 3.6 per cent were paid claims for injury while to 24.3 per cent of 4862 insured farmers' claims were paid. It was stated by one of the delegates that where a commercial traveller insures for \$5000, a company under a proper equalization can only afford to insure a farmer for \$500 at the same cost.

An interesting question in connection with the new taxation law is how far the new taxes will be really borne by those who pay them in the first instance, and to what extent they will be shifted to the great body of consumers says the Review of Reviews. The act facilitates the shifting of the tobacco tax by providing for packages containing one-sixth less than those formerly used, and doubtless the customary size of a glass of beer will also be reduced in many cases.

On the other hand, the tax on patent medicines and other proprietary articles is almost too small to increase retail prices, except by checking in some degree the tendency to sell these goods at cut rates. The act specifically provides that the tax on sleeping-car and parlor-car tickets is to be paid by the companies issuing them, and there seems to be little chance that either this or the tax on bills of lading will be shifted, but the tax on passage tickets to foreign ports will doubtless be found to increase the expense of trips to Europe this summer.

Of more importance is the effect on prices of sugar and oil, of the tax on gross receipts of refiners. Professor Seligman, in his work on "The Shifting and Incidence of Taxation," says, "It is plain that a tax on monopoly gross receipts can never be shifted," because prices of monopoly articles are already such as to produce the maximum profits. From this reasoning it follows that so far as the Sugar Trust and the Standard Oil Company are monopolists and not subject to laws of competitive trade they will have to bear the burden of the taxes levied upon them.

But it is never safe to predict the precise result of a tax or of any other one of the many elements which determine prices. It is possible, for example, that the prices of sugar and oil might be increased temporarily in the present emergency for the purpose of discouraging a resort to the gross receipt tax as a permanent source of revenue.

HUSTLE is not enough by itself; some men will keep themselves and everybody else on the jump and never seem to accomplish much. Good management is better than enterprise, and persistence better than haste.

THE strawberry crop this year is enormous, and prices have been about the lowest on record. People who could not usually afford the luxury have been able to buy plenty of berries this year, and as a result the market in future years will doubtless be somewhat extended, since it always happens that a luxury which has once seen low prices sells better afterwards even if prices advance again. Hence the farmers can take what consolation they can from cheap strawberries in considering them an advertisement for the following year.

THE mushroom fad is making quite a progress among city people. Hunters of the edible fungus may be seen frequently in the woods and pastures of the suburbs. The search has all the interest of plant hunting in general, with added inducement of obtaining a product which is good, substantial food. Good mushrooms grow on every farm and would doubtless be gathered by the owners if they understood their value as an article of food, and how to distinguish them. The United States Department of Agriculture publishes a free bulletin describing the most common kinds. Nobody should attempt to use mushrooms until he knows what he is about, as some kinds are as poisonous as the bite of a serpent.

Hood's Pills
Are much in little; always ready, efficient, satisfactory; prevent a cold or fever, cure all liver ills, kidney, ache, jaundice, constipation, etc. Price 25 cents. The only Pills to take with Hood's Sarsaparilla.

OLD GLORY SHOW YOUR COLORS.

Washington News.

With the growing interest in mushrooms and the well known deadly effect of some species of the order, have come various descriptions of the poisonous varieties and minute instructions as to how to distinguish between the good and the bad. It seems singular, however, in view of the large aggregate number of deaths and casualties annually throughout the country of both animals and human beings, that no popular publication has yet been introduced describing the various poisonous plants to be met with in the United States. If a traveler tramps through a tropical forest, where everything is new to him, he views with awe some suspicion every singular looking plant, fearing that it is some fearful growth which may produce an unknown and deadly effect if he touches it or chances absent minded to pick off a leaf and place it to his lips. Yet he would traverse the length and breadth of his own country and never realize that there are some fifty or sixty common poisonous plants, all and any of which have produced more or less deadly results as affecting men and animals. Few people probably know that the sweet and innocent looking little lily of the valley possesses a deadly poison which may produce paralysis of the heart and for which no special antidote is known. Everybody may not know that the beautiful pink-flowering laurel is a deadly poison to sheep and that hundreds of these animals perish annually from eating it.

The Division of Botany of the National Department of Agriculture will shortly publish a little book of some fifty pages giving an accurate and popular description of about fifty of the most poisonous plants found in this country. The work is the result of several years of careful inquiry and extended correspondence on the part of the Department, and is so valuable and so easily understood in its descriptions that everybody should send for a copy. As usual with such instructive documents, it is to be mailed free to applicants. An original and novel method was employed by the Department in gathering its information on this subject. Through newspaper clipping bureaus, the Division of Botany receives notices of all the cases of poisoning that are recorded in the principal newspapers. Then, through the persons mentioned by name in these articles, or through the local postmaster, they get into correspondence with the physician in charge of the case secure a specimen of the plant responsible for the poisoning, and the place on file a complete record of the symptoms, treatment and result. By this means a large amount of authentic and valuable information has been received.

In this book about fifty plants have been considered, including most of the important poisonous species, with full illustrations. The action of the poison is noted and proper remedies, antidotes and treatment suggested. Two deadly species of mushrooms head the list. They are fully described and their close resemblance to edible species shows what care should be taken in gathering or buying this fungus for food. Neither of the two species has a disagreeable taste, which is considered a sufficient test by many people in deciding poisonous from edible species. The worst mushroom—the Death Cup (Amanita phalloides)—indeed so closely resembles the Meadow mushroom that it is frequently mistaken for it. When fresh, it has neither a disagreeable taste nor odor; it is usually white or straw colored and very attractive looking. In shape it resembles the Meadow mushrooms, but is very much more like another species, the smooth Lepiota (Lepiota naucina), which is considerably sought after by expert epicures.

In its growth it even encroaches on the habitat of the Meadow mushrooms, sometimes occupying lawns near the borders of woods. The effect of the poison is disastrous, as it dissolves the blood corpuscles themselves; the blood thus loses its vitality and the whole system is forced slowly but surely to give way. The danger is the greatest from the fact that there is no known antidote for the poison of this species.

A statement which finds general acceptance is that the wild parsnip is poisonous and that eating its roots frequently results in the poisoning of whole families, seems to be a popular mistake, as the wild carrot is of the same species as the cultivated variety. The mistake has grown out of the fact that the wild parsnip closely resembles the poison hemlock, especially the roots. The American water hemlock is one of the most poisonous native plants in the United States. Its victims include both man and beast. The roots are the most poisonous and are especially dangerous because they are washed or frozen out of the ground in many cases, and thus exposed to view, children mistaking them for horseradish, parsnip, artichokes and other edible roots. No chemical antidote is known for this poisoning which is attended with frightful convulsions ending in death. A piece of the root of the Oregon water hemlock the size of a walnut has been found fatal to a cow. Owing to its similarity to the wild parsnip, especially in the spring, before much leaf growth has appeared, the use of that harmless edible should be carefully avoided for domestic purposes if one would keep on the safe side.

The ordinary corn or wheat cockle is also described as a bad poison, fatal cases having resulted from eating four containing a very large proportion of cockle. A species of wild cherry (Prunus serotina), which resembles the edible wild cherry, is also noted as a deadly poison, both the

fruit and the leaves. I have lived on a farm all my life and I find in this list a large number of plants which I never considered at all dangerous, and would doubtless in my younger days have eaten if some boy had "dared" me. Ignorance, however, is bliss, and we never know how close we may be standing to the brink.

BEEF SUGAR.

The frequently mentioned report of the Secretary of Agriculture on the beet sugar industry in the United States has at last been published by Congress. Secretary Wilson would have long ago had it published but he had no available funds and so was dependent upon Congress. It is quite a book, of nearly 250 pages, and gives a very exhaustive account of what has been done in beet sugar in the United States, with information as to what sections produce the best beets for sugar purposes. The report points out clearly that the total amount of sugar consumed in this country can be produced from one million acres, which is but a small proportion of the land adapted to beet growing, and that in view of this fact it is of great importance that the industry should be established, and such expensive plants as sugar factories are erected in only such localities as have demonstrated their fitness to produce high grade sugar beets. The demand, though immense, is not sufficient to warrant an unlimited production, as is the case with corn or wheat, and being limited, only the fittest will survive the competition. Therefore it is well to go slow and find out first how large a percent of sugar you can get from your beets.

A NEW FORESTRY POLICY.

On the first of July, Mr. B. E. Fernow, the present chief of the Forestry Division of the Department of Agriculture will assume the duties of his new office as Director of Forestry for the State of New York. New York is far in the lead in the forestry movement, having awakened to a realization of the fact that something must be done in forest propagation, if there are to be any supplies of lumber in this country for future generations. The state has already acquired title to a million acres of forest land in the Adirondack region and is making very appropriations to increase the acreage. Mr. Fernow will have 30,000 acres of woodland set aside as an experimental plot upon which to demonstrate the feasibility of cropping trees, and establishing a proper rotation to the end that a forest will supply an annual crop of lumber, producing an annual income, as against the present method of cutting down whole forests, as is done in the western states, and then allowing the land to grow up to scrub of a worthless nature. There are millions of acres in the west of thin land unsuited to agriculture, which have been depopulated of their forests and burnt over. They should be acquired by State or National governments and set aside as forest reserves, says Mr. Fernow. Otherwise we will wake up some fine morning and find that we are a nation without a sufficient lumber supply for our own needs. The United States government now owns 34,000,000 acres of timber reserve, but much of it is improperly cared for and subject to the depredations of unscrupulous parties. With the proper forestry policy he suggests that this timbered area would produce a large annual yield of timber, meanwhile enhancing its own value. Mr. Fernow's operations in New York, where is now open the first opportunity for practical forestry demonstrations in this country, will be watched with a good deal of interest by those who have given any thought to this large problem.

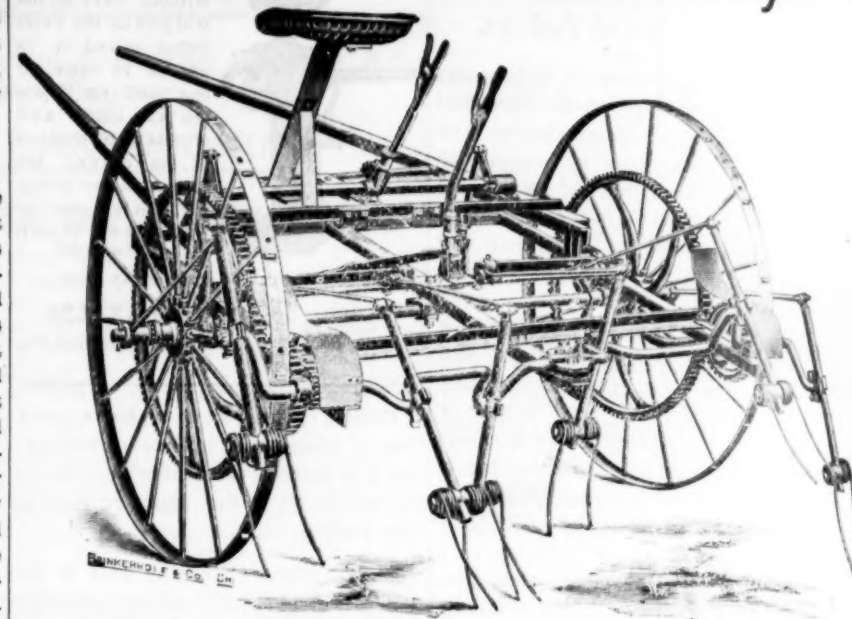
DURABILITY OF TIMBER.

An interesting little leaflet is just out by the Division of Forestry entitled "Increasing the Durability of Timber." It acquaints us with the fact that decay in wood is caused by a fungus which lives on the wood, and under certain conditions thrives more vigorously than under others. Moisture, heat and air are most favorable to its growth and spread. It seems thus that we have this many years been laboring under a delusion that wood rotted. Instead it is eaten by this fungus, and what interests the farmer is to know how to kill or render harmless this small animal. Some woods are much more susceptible to its attacks than others. If wood is damp or sappy it can enter more readily than if dry and seasoned. Charring the points of fence posts is a good plan, as the charcoal acts as an insulator through which the fungus cannot readily pass. The operation, however, is liable to develop large cracks through which the fungus can penetrate to the heart of the post. The leaflet gives a number of formulas for use in preparing timber and posts to withstand its attacks. A mixture is recommended of three parts coal tar and one part clean unsalted grease, the latter to prevent the tar from drying until it has penetrated the wood. One barrel of coal tar will cover about 300 posts, at a cost of not over a cent and a half each. Tar alone, and oil paint, however, have the disadvantage of acting as mere covers and do not penetrate the pores and kill the fungi, and if the wood be moist before the application they do more harm than good. Certain heavy tar oils, freed of their volatile and heavy tarry constituents, such as are now offered in the market under the name of carbolineum are better than paints or tars. These oils act as antiseptics, penetrating the wood and killing the fungi.

KILL THE CUTWORMS.

A method used by Florida truck growers for fighting cutworms can be as effectively used in other sections where this pest is annoying to gardeners. A poison mash is prepared by mixing twenty-five pounds of bran, one quart cheap molasses and one-half pound good Paris green, with sufficient water to make a thick

"Unequaled For The Money"



THE BAY STATE HAY TEDDER

Eather steel or wood frame, six or eight fork, the lightest draft and easiest to operate of any Tedder on the market. If you want any thing in the hay tool line write us. We will sell you a good horse rake for \$13.00, horse dump, steel axle, 24 teeth. SEND AT ONCE.

ROSS BROTHERS, - - - Worcester, Mass.

mash. A pinch of this is dropped at the base of each hill or plant, in the evening. The cutworm works at night and when he comes abroad he will tackle the sweet bran in preference to the vegetable. This mixture is as deadly, however, to chickens and other live stock as it is to cutworms and the results less satisfactory.

GUY E. MITCHELL.

Literary Notes.

The leading features of the July HARPER'S MAGAZINE are "The People and their Government," by Henry Loomis Nelson; "The Ethics of a Corrida," the story of a rencontre with a Spanish bull-fighter, by Lucia Purdy, illustrated by photographs taken by the author; "Notes on Journalism," by George W. Smalley; "A Man and his Knife," passages from the life of James Bowie," by Martha McColloch-Williams; "Eastern Siberia," by Stephen Bonsal, illustrated from photographs taken by the author; "A Colonial Dame, Neglected Records of the Life of Mistress Sherman Brent, the earliest American Woman to demand the Right of Suffrage," by Caroline Sherman Banermer; "New Era in the Middle West," by Charles Moreau Harger; and "New Words and Old," by Professor Brander Matthews.

In view of our present relations with Spain, the article by Miss Purdy on "The Ethics of a Corrida," giving a non-partisan view of bull-fights and bull-fighters, is a courageous piece of journalism. Miss Purdy is an American girl, who, somewhat against her will, was taken to a bull-fight, and became acquainted with Senor Guerra, the King of Spanish Matadores. Her account of the training of her feet from those of the ordinary Anglo-Saxon to a more intimate understanding of the skill and courage required of a matador, is interestingly and well presented. In one significant passage she relates the horror a Spaniard expresses after bearing of the brutality and excesses of the American game of football.

Mr. Nelson in his article on "The People and their Government," speaks from a wide acquaintance with public men and affairs, and with an intimate knowledge of our modern democracy, its shortcomings, and its promises. In addition to "A Prince of Georgia," the July number includes "The Thief," the fourth of the "Old Chester Tales," by Margaret Deland, illustrated by Howard Pyle; "A Question of Courage," a story, by William McLenan, turning on differences of physical bravery; "Sun-Down Lefare's Money," by Frederic Remington, illustrated by the author; "A Petitioner," by Margaret Sutton Briscoe, illustrated by F. C. Yohn; and "The Story," by George Hibbard, illustrated by A. E. Sierst.

THE REVIEW OF REVIEWS continues strong on war topics. In the July number the editor reviews the whole campaign up to the landing of our troops for the advance on Santiago, showing the precise part which Lieutenant Hobson's exploit had in the general scheme. Mr. William Hayes Ward of the Independent, treats of Hobson's career as that of the typical young American student, the article being illustrated with interesting family portraits. Mr. Edwin Emerson, Jr., whose adventures in Porto Rico last month were chronicled by the newspapers from one end of the country to the other, contributes a valuable account of some things that he saw and learned on his perilous journey. As Porto Rico seems destined to be the theater of the next great movement of our troops after the fall of Santiago, this fresh and first-hand study of the country from an American point of view is most timely. The article is illustrated.

Dr. Max West of Washington, writes an instructive summary of the new war-tax legislation of Congress. His treatment of the subject is accurate, lucid and practical. The Trans. Mississippi Exposition at Omaha is described by Mr. Henry W. Lanier. The illustrations include scenes at the opening exercises, June 1. Readers will turn with special interest this month to Mr. W. T. Stead's character sketch of Gladstone. The portraits of "Mr. Gladstone in His Library," "Mr. Gladstone Listening," and Mrs. Gladstone are very striking. International Cartoon Comments on War with Spain" and the "Record of Current Events" also cover the situation up to date.

Mr. Frank R. Stockton's new serial, which will run in HARPER'S WEEKLY during the summer months, has been entitled "The Associate Hermit." It is a story of vacation life in the Adirondack woods, and in this subject Mr. Stockton has found an excellent opportunity of giving full play to his characteristics and fanciful humor. The general tone of this tale is the same as that of the author's famous "Rudder Grange," and it will continue through thirteen numbers of the WEEKLY, beginning with the issue of July 2.

World Over.

—Large quantities of opium are being smuggled into Hawaii from Victoria.
—Five men have been drowned in the Straits of Magellan while en route to the Klondike.
—Poverty due to crop failure and war has been assigned as a reason for the decrease in British exports.
—An English establishment has secured the contract for the track material for China's imperial railway.
—An arrest is reported of a count and countess for attempting to poison the czar and czarina of Russia.
—The German minister in China has secured the withdrawal of a Chinese concession to American capital.

Read and Run.

—The price of lemons has advanced.
—A comet has been discovered at Lick Observatory.
—The dry goods men are hopeful of a large fall trade.
—The Prospect House at Cottage City has been burned.
—The Dawson-bound steamer Ora has been reported lost.
—Dealers do not expect much advance in tea because of the tax.
—Small exports to South America are reported of farm tools.
—An increased use of crude rubber threatens to exhaust the supply.
—There has been a great gain in new industries in New York this year.
—Hobson and his men have been reported safe and well in Santiago city.
—Between 8,000 and 10,000 colored soldiers are being mustered into service.
—Nine large vessels have been purchased for use as Government transports.

—The Leather Trust is said to have made several thousand dollars on the advance in hides.
—More than 500 persons joined the annual pilgrimage of the Old South Historical Society.
—Tobacco acreage increase in Virginia is less than five per cent; the old stock is mostly marketed.
—The new tariff law has had no perceptible effect on the importation of tea to the port of Boston.

—The new North German Lloyd steamer Kaiser Friedrich made a very slow run on her first voyage.
—The Illinois Central directors have authorized the purchase of \$2,000,000 of new Government bonds.
—Twelve more disappearing gun carriages will soon be ready for shipment from the Watertown Arsenal.

—The Washington officials show a tendency to believe stories that Spain is preparing to suggest peace terms.
—The Secretary of State of Cuba's provisional Government is on the way to Washington with official despatches.
—Lieutenant Peary of Arctic fame is visiting his mother in Bethel, Me. He expects to start North the first of July.

—Russian officials have arrived in Philadelphia to watch the building of warships and locomotives for their government.
—One soldier has been killed and fourteen others injured by lightning strokes at the camp of the Second New York Volunteers at Tampa.

—Admiral Camara's Cadiz fleet is thought to be heading for Manila, not to engage Dewey, but to capture, if possible, the third or fourth American expedition.
—One soldier has been killed and fourteen others injured by lightning strokes at the camp of the Second New York Volunteers at Tampa.

We have received at this office a fine basket of strawberries from Joseph Lewis of Swansea, Mass. The berry is a new one and has been christened the Swansea Belle. They were somewhat irregular in shape, inclined to be long and pointed rather than short and thick. They had a fine appearance, even after being shipped in such extremely hot weather as prevailed at the time. The flavor was good, not especially sweet, but just right enough to suit the taste of those who like a little "spunk" to a berry. If more thoroughly ripened than the specimens sent, they would be sweeter. They are likely to prove an addition to the list of strawberries.



THE HORSE.

Cost of Training Carriage Horses.

The question is now quite frequently asked, "How much does it cost to train and get a carriage horse ready for market?" Indeed, the idea seems to prevail in some quarters that a regular expensive course of training is required with the coach and carriage horse, as it is with the trotter. The belief quoted is entirely erroneous, no expensive system of training is necessary, no boots, hoppers or other costly paraphernalia; the horse must be well broken, well groomed and well conditioned, that is all. Of course, the better broken the horse is, and the more accustomed to the sights and sounds of urban life, the better he will sell; but even if he never saw an L road with its trains thundering over his head, he will bring a long price, provided his action and conformation are all that they should be. Wonderful stories are going the rounds about contrivances necessary to give a park horse the proper action, and various devices, ranging in scope from spectacles, with magnifying lenses, to complicated spring "contraptions," to fasten to the forelegs, so educate the horse to double his knee; but all such are hollow mockeries; unless the horse has the right conformation he will never acquire the action, and if he has the action his conformation as a general will be of the kind required. In short, type and action generally go together, both having been developed simultaneously, and the mating of the right sire and dam is the best "contraption" for the fixing of high action in the progeny.

There is no doubt that a horse with naturally high action may be made to go higher by proper treatment. For instance, when first taken up, he should never be driven to the point of great fatigue, and he should always be kept feeling well and in prime condition. Then he will delight to bound along, pulling up his knees and hocks, and proudly showing himself off to spectators. No amount of fixing will put action into a horse not properly formed, and it must never be forgotten that there is as much difference in high action as there is between proverbial chalk and cheese. The horse that doubles his knees up quickly and slams his feet down again hard will not sell in the same class with the horse whose forefoot is picked up and put down as though following the circumference of a wheel, the pastern springing quickly when the foot touches, not strikes, the ground and is picked gracefully up again to perform its round circling motion once more. The horse with the latter way of going will outwear two or three of the others, and though any kind of high action will sell to advantage, the more graceful sort described is the kind that should be sought. It goes with the conformation of shoulder, head, neck, loin, quarter and hock that is most desired, and is in all ways infinitely preferable.

Grow the sires and dams that will produce offspring with this action and conformation; all the training that will be found necessary is very slight. The horse must be taught to drive on a loose rein; a puller will never sell to any advantage. No gentleman will bother with one for a moment. When thoroughly broken on the farm to do all kinds of light work, the education of the colt should be continued as far as possible in the nearest village. He should be thoroughly accustomed to stand unmoved when express trains and electric cars dash by, and he should be accustomed to as much "town life" as possible.

He should never be made to draw a heavy load, for that spoils his mouth, stiffens his shoulders and sours his temper; none but light work should ever be demanded of him. He should, as noted, be kept as fat and feeling as gay as possible, and when the time comes to sell him he should be sleek as a seal, sound and cheerful, with his mane, foretop and tail as nature made them, and all as clean and fresh looking as hands can make him. This is all the training required for a carriage horse. It involves no expenditure of money, nothing but common sense, patience and the exercise of as much sense as the horse has himself. Stallions to beget such carriage horses must have the qualities required by right of inheritance, and the more of them the mares have the better.—Horse World.

LESS THAN HALF the price of straw is one reason why you should use German Pest Moss for horse bedding. C. B. Barrett, Importer, 45 North Market Street, Boston.

The Weather Bureau's Weekly Crop Bulletin.

FOR WEEK ENDING MONDAY JUNE 27, 1898

OFFICE OF THE UNITED STATES WEATHER BUREAU, BOSTON, MASS., JUNE 28, 1898.

THE WEATHER OF THE WEEK.

The weather has been fairly favorable for farm work, except that showers have been too frequent for haymaking in parts of New Hampshire. Excepting the cool nights in the northern part of the district, the conditions have been generally favorable to the advancement of all crops. Quite a heavy frost occurred on the 23d in lowlands in the vicinity of Goldenridge, Aroostook Co., Me., and a light frost, without damage, at Claremont, N. H. Hail storms occurred in many sections of New Hampshire, Vermont and Massachusetts on the 22d and 23d. Considerable damage resulted to vegetation in the neighborhood of Washington, Sullivan Co., N. H. The week is considered the best of the season in many sections of Massachusetts, Rhode Island and Connecticut; the sunshine caused rapid growth of crops, and the fair weather favored farm pursuits.

Temperature.—This element has ranged low, excepting the closing of the week when midsummer conditions obtained. The means at the several Weather Bureau stations for the week are as follows: Boston, 70; Portland, 68; Northfield, Vt., 64; Eastport, 58; Nantucket, 64; Albany and New York City, 70.

Rainfall.—The precipitation, consisting of showers, was well distributed. The amounts at the several stations of observation, in inches, are, Boston, .20; Portland, .05; Northfield, Vt., .30; Eastport, .30; Nantucket, .05; Albany, 1.00; New York City, 1.00.

CONDITION OF CROPS.

General Situation.—The crop conditions continue in a generally satisfactory condition, and have improved somewhat in about all sections. Hay is in advance from a week to ten days. Hoeing is a week to a fortnight late. The result of haymaking and hoeing coming at the same time is foulness from weeds and overworked farmers. A want of rain is reported from all sections of Rhode Island. The same applies to Connecticut, except that an excess of moisture in the soil is reported in some sections of New London Co. In the larger portion of this state the drought is becoming injurious; pastures are becoming brown and strawberries are showing the effects of dry weather. The prospects of the district, as a whole, are fully up to the average.

Grains.—Corn is improving in about all sections, but is still backward. The sunshine and showers have improved the color, though the cool weather in northern sections has been unfavorable to rapid growth. Rye and oats are showing some rust in western Massachusetts. The rust is also affecting the oats in sections of Fairfield Co., Conn. As a whole the grain crop is promising.

Fruit.—The caterpillars have about ceased their ravages, but the apple crop in many sections has been destroyed. Most damage was done in parts of Chittenden Co., Vt. The town of Shelburne is located in a heavy apple producing district where the crop will be but a small per cent of that which was promised. The forest worm has wrought great damage to the sugar maples in sections of Windsor Co., Vt. It is believed that the trees in many instances are permanently injured. The apple crop of the district will probably be an average one. The indications are favorable to a good supply of pears, plums and cherries. The peach trees in Connecticut show plenty of fruit.

Vegetables.—Field and garden vegetables have, as a rule, made good progress. The potato crop in all sections is very promising. It seemed unusually free from injurious insects. The early crop is blooming in northern sections, and in southern portions the new potatoes are nearly ready for market. Asparagus is still being cut in Massachusetts. Garden truck generally is in excellent condition and very plentiful.

Berries.—The strawberry crop is especially abundant. In some sections the market is reported overstocked. The fruit is very fine in quality. Blackberries, raspberries and wild berries promise a large yield.

Tobacco.—Some setting has been done during the week in western Massachusetts. The plants are reported backward and small in some sections. Weather too cool for rapid growth.

J. W. SMITH,
Section Director, Boston, Mass.

Horse Owners! Use Caustic Balsam

The Caustic Balsam is a safe and positive cure for all kinds of horse ailments. It is a powerful antiseptic and disinfectant, and is used for all kinds of horse ailments, including abscesses, ulcers, and other skin diseases. It is a powerful antiseptic and disinfectant, and is used for all kinds of horse ailments, including abscesses, ulcers, and other skin diseases.

Boston Cooking School.

The normal class of the Boston Cooking School held their graduation exercises Tuesday afternoon, June 28, an event which closed the work of the Cooking School for the year. This has been a very successful year for the school, the classes have been larger than ever before, and the work broadening out into new lines. The additions to the force of teachers have proved themselves wisely chosen, and the new rooms have been a great factor in the success of the year, giving sufficient room, pleasant surroundings and conveniences for working. The expense of fitting the rooms for the purpose was a large one but has been fully justified by the gain. Mrs. Sewall, the president of the school, by long and serious illness, has been prevented the past year from taking any active part in the work although she has shown the warmest sympathy and interest in everything connected with the school. Her place has been ably filled by the acting president, Mrs. Elliot Russell. Under Miss Fannie M. Farnea as principal, the school has made a large growth the past year.

The rooms Tuesday afternoon were patriotically decorated with national colors, the color scheme being carried out as far as possible in the refreshments as well, although the class refrained, from hygienic reasons, from employing blue in the latter. The twenty-seven graduates, the largest normal class, we believe, ever graduated from the school, were dressed in spotless caps and dresses for the occasion and an interesting program was given.

One of the newer lines of work taken up by the school is the teaching of laundering in the best manner and the first demonstration on the program was the Laundering of Fine Laces by Miss Ewart. She said that in washing laces it was necessary to change the water very frequently until the last water showed no trace of the soil from the lace. Light handling was necessary so as not to injure the fine texture and delicate threads, and a good soap should be used, not too harsh so as to injure the lace. When thoroughly cleansed, the lace may be stiffened by rinsing it in sugar and water. It should then be pressed right side down on a board covered with flannel, carefully pinning the lace into shape and pinning every point. Plenty of pins should be used, the small piece of lace which Miss Ewart illustrated with being completely hidden from sight by a small forest of pins sticking points down into the board. The lace should not be touched with an iron but should be left on the board at least twenty-four hours, and not removed until perfectly dry. Old lace yellowed with age may be whitened by moistening and laying in the bright sunshine, moistening it whenever it becomes dry. Coffee gives an ecru tint to lace if such an effect is desired. A lace handkerchief laundered and pinned on flannel as directed above, and untouched by an iron, was passed through the audience, and was a beautiful evidence of fine laundering.

"When doctors disagree," 'tis folly to be wise," but Miss Halladay in her paper, gave some points in the hygiene of food for the human body on which the authorities agree, thereby adding to the wisdom of the audience. She said they all agreed it was necessary to eat. Mrs. Howard gave a bright account of Baking Powder and Its Uses. She recounted the trials of the housewives before the discovery or invention of baking powder and read for the benefit of the audience several recipes in use in early days. The Hebrew housewife made but three kinds of cakes, those mixed with oil, fried in oil or smeared with oil, but used no leaven of any kind. And yet some of those who partook lived to the good old age of 999. The Greeks used honey very largely, their gingerbread being made of honey, flour and ginger but no leaven. A recipe of Cato's used by the Romans was given, in which eggs were used to give lightness. The early colonists used pearl ash, sour milk, lemon juice or something similar supplying the necessary acid, and it mixed with "judgment," the result was good. The use of saleratus, tartaric acid and soda was spoken of, and in 1839, John M. Ordway, a young apothecary in Lowell, laid the foundation of the present use of baking powder, through his suggestion of cream of tartar and soda to be used in bread. Alum was also used at that time, but is injurious to health. The pure baking powders now on the market are composed of soda and cream of tartar, with a small proportion of some other substance for the purpose of keeping the powder in good condition. Preston and Merrill's powder was the first to be put generally on the market, followed by Congress, Horford's, Royal, Cleveland and a host of others. The proportions are usually sixty parts of cream of tartar to thirty of soda, the ten parts remaining being some kind of filling. She recommended the use of a pure baking powder already put up to making it at home, on account of its being more convenient, of purer ingredients, the measurements perfectly accurate and the ingredients perfectly

mixed. She illustrated her talk on baking powder by quickly putting together a cake, using the following recipe:

LIGHTNING CAKE.—Sift together from one and one-half to one and two-thirds cups of sifted flour, two level teaspoons of baking powder and one-half teaspoonful of salt. Into a half pint cup put one-third cupful melted butter, two eggs unbeaten and fill the cup full to running over with milk. Add to the dry ingredients, flavor with half a teaspoonful of vanilla and beat sufficiently to mix all the ingredients.

This was recommended as a quick, easy cake to make, not possible without baking powder.

Miss Birdseye illustrated Fermentation as applied to bread making by making a tiny loaf of bread not much larger than a biscuit. She said if the tiny yeast plants were well treated, being given air, moisture, warmth and sweetness, they would do their work well and promptly. They needed proper care like any other plant.

Miss Field read a paper on Country Living in which she corrected some of the popular ideas as to the merits of the country dwellers. She said that love for pie was by no means confined to the country, judging by the much increased audiences which attended the pastry lessons at the school. Pie for breakfast was by no means a general rule, and she suggested that perhaps why country people fancied pies, was because they know how to make such good ones. Pie, good generous sections, is to be found in the dinner pails of the country people, but so it is in those of the city people, only not such generous slices.

They eat more pork, perhaps, than city people, but usually in the winter, and the pork is from a home raised animal, fed on good healthy food. On the other hand, pork is to be found very frequently on boarding-house tables in the city, in the summer as well as winter, and city pork comes from nobody knows where, being fed on nobody knows what.

She pictured the delights of the country people who are able to eat vegetables and fruits fresh from their own gardens and commiserated the city people who had nothing better to select from than the poor, wilted vegetables to be found in the markets, much of them flavorless and worthless from careless transportation and long keeping, and said it was no wonder that city people did not use milk, cream and eggs as freely as they might but these had a direct cash value to them and if eggs were worth forty cents a dozen to the city man they were worth as much to the farmer and ready cash was not plentiful with the farmer.

Miss Field said that the city people did not use milk, cream and eggs as freely as they might but these had a direct cash value to them and if eggs were worth forty cents a dozen to the city man they were worth as much to the farmer and ready cash was not plentiful with the farmer.

The country housewife lives far from supplies, the order wagons come infrequently and the living is plain, but the appetites good. The diet must be adapted to the mode of living and food suitable to the country would not be adapted to the city dweller.

Miss Phelps demonstrated the making of a Sicilian Sherbet which was not a sherbet but a salad made of grape fruit and cherries. The mayonnaise was flavored with cherry juice and the grape fruit juice. The cherries were stoned and heaped in the center of the dish on lettuce leaves shredded, and the pulp of the grape fruit carefully removed without any trace of the bitter white skin was placed around it, the mayonnaise being put upon it by spoonfuls. The combination was a very pretty one.

The program was concluded by a well written paper on the Ethics of Science by Miss Kendall, who said that the aim of life was to live nobly and well.

Refreshments were served from prettily decorated tables to the guests after the diplomas were awarded. The graduates were as follows:

Miss Bernette Bachelor, Miss Eleanor Birdseye, Miss Mary F. Carey, Miss Zilpha M. Crane, Miss Margaret L. Dike, Miss Grace A. Eno, Miss Nellie E. Ewart, Miss Maude E. Field, Miss Louise Garland, Miss Edna J. Halladay, Mrs. Emily H. Hawes, Miss Mary P. Hazard, Mrs. L. Abbie Howard, Mrs. Elizabeth O. Hiller, Miss Clarissa Larabee, Miss Laura M. Munger, Miss Marietta McPherson, Miss Anna V. Miller, Mrs. Katherine M. Parsons, Miss Margaret Kenwill, Miss Annie L. Phelps, Miss Sara Reque, Miss S. E. Watson, Miss Nellie W. Cobb and Miss Perle Taylor.

ECONOMY AND DURABILITY.

Economy and durability in painting and paint materials is the boon property-owners are looking for. With most articles more cheapness is another name for worthlessness. "A cheap coat on a cheap man" has passed into a proverb, but in paint materials the best and purest are actually the cheapest in first cost because in the amount of surface they will cover, and cheapest when the question of durability is considered. The reason for this is not hard to find. Pure white lead and pure linseed oil are articles at such fierce competition, beginning with the manufacturer, and extending to the jobbing trade and retail dealers through whom they reach the consumer and property-owner, that the final cost to the last purchaser is but a trifle above the first cost to the manufacturer. It is a fact known to all the Paint Trade and constantly stated and bewailed in the Trade Journals, that there is no profit in selling pure white lead and linseed oil, and dealers are constantly importuned to push the sales of combination paints, zines and ready-mixed paints, on which they can realize a large profit. The mixtures are generally largely composed of whitening (ground chalk), silica (ground quartz), terra alba (powdered gypsum), or barytes, (a pulverized barium chloride) and sometimes used. These materials have

no value as paint material, as they do not cover or effectively hide the under surface, being semi-transparent in their nature. They cost from 1-4c. to 3-4c. per pound, and are used to give weight and volume to paint; not because they add anything to its value, but because they are cheap and increase the profits of the manufacturer at the expense of the consumer who in nearly every case pays nearly the value of pure paint in their nature. While it has a legitimate place in certain branches of painting, it is greatly inferior in covering properties to white lead, while pound for pound it will spread over more surface than white lead, yet twice the number of coats will be required to cover or hide the surface as well; besides, when exposed to the weather the paint will not last, but will crack and chip off in such a way that repainting cannot be done to advantage without removing the old paint by scraping or scarping, which is a most expensive operation.

The average cost of the best ready mixed paint to the consumer is \$1.25 to 1.50 per gallon, which will cover 200 to 250 square feet, two coats. The cost of a gallon of pure white lead and pure linseed oil paint, tinted with pure colors, and mixed by the purchaser, is about \$1.20 per gallon, and it will cover 400 to 425 square feet, two coats. In this comparison we have only considered the best grades of ready mixed paint which contain pure oil, and are cheap and increase the profits of the manufacturer at the expense of the consumer who in nearly every case pays nearly the value of pure paint in their nature. While it has a legitimate place in certain branches of painting, it is greatly inferior in covering properties to white lead, while pound for pound it will spread over more surface than white lead, yet twice the number of coats will be required to cover or hide the surface as well; besides, when exposed to the weather the paint will not last, but will crack and chip off in such a way that repainting cannot be done to advantage without removing the old paint by scraping or scarping, which is a most expensive operation.

The only way for the property-owner who wishes economy and durability in his painting is to buy pure linseed oil and pure white lead under brands which are known to be pure and reliable, or order them through an honest painter. Particularly avoid so-called combination leads, which generally contain a large proportion of cheap and worthless material.

Pure linseed oil is the foundation for all good painting, because when it dries it does not evaporate like water, turpentine, benzine or coal-oil, leaving nothing behind, but it absorbs oxygen from the air, forming a tough, elastic, insulating coating, adhering to the surface, and holding in its embrace the color or pigment. If any substance that evaporates, such as those mentioned above, is added, the coating is weakened thereby, and the durability of the paint impaired. If fish-oil, cottonseed-oil, or other oils are added, the paint will not dry properly and durability will be lessened. Linseed oil applied alone to wood will not last nor preserve the wood. This is because the dried film or coating is not impervious to moisture, and is soon destroyed by the sun and atmosphere. This is easily shown by the blackening of the oil and wood in exposed surfaces, which have been finished in oil alone. It is evident, then, that something must be combined with the oil in the paint which will render it impervious to moisture and preserve it, if durability is desired.

Those who advocate the use of diluents, adulterants, or extenders in paint, such as whitening, silica, terra alba or barytes, do so on the ground that they are inert and have no action on the oil. Others claim as an advantage that they make the paint porous. We have seen that porous paint is most fatal to durability, as it is a minute moisture which will soon work its complete destruction, and that an inert material which does not render the oil waterproof can be of little or no value.

The effect of zinc, either alone or combined, even in small proportions, is to make the paint, when dry, hard and brittle without elasticity. It destroys the adherent and coherent qualities of the oil.

The expansion and contraction of the surface from heat and cold, or from moisture and dryness, inevitably loosens such paint, and causes it to crack, chip and scale off, carrying with it any subsequent paint which may be applied. The only known materials which will combine with linseed oil and form a waterproof and durable paint are those with a lead base. From inert among these is white lead, whose value as a paint material has been recognized for centuries before the scientific cause of its excellence was discovered. It combines most readily with oil, works freely under the brush, when properly applied will outwear any other pigment; a gallon for gallon will cover twice the surface, and when repainting is required forms the best possible base for subsequent coats. There are two kinds on the market, that made by the old Dutch process, which has been the standard paint for centuries, and requires upwards of four months in preparation. It is a very heavy white powder, dense and impervious to light; hence its great covering properties and ability to hide the surface to which it is applied. The other is made by quick process in a few days, not differing greatly in chemical analysis, but much lighter, looser, bulkier than the old Dutch process, besides being more or less crystalline and lacking opacity and covering properties, therefore requiring three coats to do the work of two coats of the Old Dutch process lead, rendering 50 per cent. more labor necessary.

ECONOMY AND DURABILITY. We have shown that, gallon for gallon, pure linseed oil and pure white lead, Old Dutch Process, is the cheapest paint that it covers twice the surface of the best of other paints; that it saves in labor; that it is the most durable, as, when repainting at last becomes necessary, the new coat can be applied, without removing the old paint by burning and scraping, it is the most desirable. When, as a property-owner, you decide to paint your house, and wish to practice economy and obtain durability, what kind of paint will you use?

HENRY LIEBER.

NAHANT AND BASS POINT.

There is no better place or more enjoyable way to escape the hot weather than to spend a day at that beautiful resort on the North Shore, Bass Point, Nahant. That the public is well aware of these facts accounts for the large crowds which have thronged this watering resort during the past few days. The management of the Nahant Line and Bass Point House are most generous with their patrons and every afternoon and evening there are band concerts by Lafreia's Naval Brigade Band, and free dancing in the pavilion of the Bass Point House, where a first class orchestra is always in attendance. Lafreia's Naval Brigade Band will give the patrons of Bass Point an extra every 90 minutes.

THE STEEL TANK ON THE FARM.



This is the age of steel. The wooden age has gone with our immense forests, never to return. In former years wood was plenty, wood was plentiful, and there was always money to pay them. People were satisfied with wooden tanks, simply because they knew of nothing else. When the old trough rotted out, when it froze and burst, or when it sprung a leak they made another. But the world is in a hurry to-day. It has not time "to make another." What it wants is a tank that will practically last permanently, that is not subject to accident, and that is just the right size. The Kelly Foundry & Machine Co., of Goshen, Indiana, is manufacturing and selling a steel tank that is guaranteed as practically accident proof and wear proof. It is galvanized and does not rust easily, and can be ordered of almost any size that is needed. They are lighter than wood and more economical of space. The Kelly tank is sold under the name of the "Goshen," and it is certainly a first class investment for a farmer needing anything of the kind.

A Short Water Supply
It is economy to have an ample supply and have it always. Live stock will live longer without water than without food. The "Goshen" Tank of the Kelly Foundry is the remedy is a "Goshen" Tank of the Kelly Foundry. It is a first class investment for a farmer needing anything of the kind.

Radway's Pills

Purely vegetable, mild and reliable. Cause Perfect Digestion, complete absorption and healthful regularity. For the cure of all disorders of the Stomach, Liver, Bowels, Kidneys, Bladder, Nervous Diseases.

LOSS OF APPETITE, SICK HEADACHE, INDIGESTION, DIZZY FEELINGS, FEMALE COMPLAINTS, BILIOUSNESS, DYSPEPSIA.

PERFECT DIGESTION will be accomplished by taking Radway's Pills. By their ANTI-BILIOUS properties they stimulate the liver in the secretion of the bile and its discharge through the biliary ducts. These pills in doses from two to four will quickly regulate the action of the liver and free the patient from these disorders. One or two of Radway's Pills, taken daily by those subject to bilious pains and torpidity of the liver, will keep the system regular and secure healthy digestion.

Price 25c. per Box. Sold by all Druggists.

RADWAY & CO. NEW YORK.

LITTLE GIANT DUSTER
Guaranteed to give satisfaction.

Will dust Paris-Green, London-Purple, Hellebore, etc. on Vines, Bushes and Trees. AGENTS WANTED. Write for circular.

LEGGETT & BROS., 301 Pearl St., New York.

FARMERS

You can make money by selling and using FARMERS' STEEL STEAMER CAPE ANN COLUMBUS ORCHESTRA.

And the Popular STEAMER CITY OF GLOUCESTER

Leave north side Central Wharf, Boston (foot of State St.), weather permitting, week days at 10 A. M. and 2 P. M.; leave Gloucester at 3 and 7:30 A. M. and 2 P. M. Sundays leave Boston at 10:15 A. M. and 5 P. M.; leave Gloucester at 3 and 7:30 A. M. and 3:15 P. M.

Fare, 50c.; Round Trip, 75c.

Book of 50 Trips, \$12.50.

P. S.—No 3 A. M. boat from Gloucester Monday.

E. S. MERCHANT, Gen. Mgr.

TO GLOUCESTER

THE NEW AND ELEGANT STEEL STEAMER CAPE ANN COLUMBUS ORCHESTRA.

And the Popular STEAMER CITY OF GLOUCESTER

Leave north side Central Wharf, Boston (foot of State St.), weather permitting, week days at 10 A. M. and 2 P. M.; leave Gloucester at 3 and 7:30 A. M. and 2 P. M. Sundays leave Boston at 10:15 A. M. and 5 P. M.; leave Gloucester at 3 and 7:30 A. M. and 3:15 P. M.

Fare, 50c.; Round Trip, 75c.

Book of 50 Trips, \$12.50.

P. S.—No 3 A. M. boat from Gloucester Monday.

E. S. MERCHANT, Gen. Mgr.

Glass Milk Bottles

We manufacture both kinds. Send for circular and Price List. DEAN, FOSTER & CO., 14 Blackstone Street, Boston, 120 Lake Street, Chicago.

musical programme on Sunday and Monday July 2 and 4. Conductor Lafreia has arranged for some fine solo performances by such well known artists as Bonavente and Strasser, Clarinetists, Paul Fox, Flutist, Xobell, Baritone, Marshall, Trombone, and Lafreia, Cornet.

With such eminent performers those who will avail themselves of the facilities the Nahant Line affords for visiting Bass Point will be sure of a fine musical treat. It is also announced by the Nahant Line that the regular double boat service for the summer season between Lincoln Wharf, Boston, and Bass Point and Nahant will begin on Saturday, June 26, when the Steamer "Fred K. DeBarry" will be put into commission, and together with the "City of Jacksonville" will run from Lincoln Wharf every 90 minutes.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.

Dr. S. A. TUTTLE, 27 Bevery Street, Boston, Mass.